

State of California  
The Resources Agency

DEPARTMENT OF WATER RESOURCES  
Division of Operations and Maintenance

# STATE WATER PROJECT OPERATIONS DATA

For the month of:  
**June 1999**

**Gray Davis**  
Governor  
State of California

**Mary D. Nichols**  
Secretary for Resources  
The Resources Agency

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Director  
Department of Water Resources

State of California  
The Resources Agency

Department of Water Resources  
Division of Operations and Maintenance

**State Water Project  
Operations Data**  
for the Month of June 1999

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## **MONTHLY HIGHLIGHTS**

The following highlights are activities or actions that impacted State Water Project operations during the month of June 1999.

June was slightly below normal in precipitation and temperature, with no sustained hot spells. Showers during the first week of June brought about one-half inch to the northern Sierra, which is half the June average for this region. Showers were heavier in the central and southern Sierra, particularly the upper San Joaquin River watershed, with some stations receiving their normal June total. Total statewide seasonal precipitation since October 1 was about 95 percent of average, with above average amounts in the northern third of the State and rather low totals in the south.

Some snow remained at high elevations but most of the snowmelt was over as peak runoff rates occurred near the end of May. June runoff was about 110 percent of average and total seasonal runoff amounts were about 110 percent of average.

Overall reservoir storage remained well above average, at nearly 115 percent of the July 1 average. The large drop in San Luis Reservoir storage of around 560 TAF was caused by restrictions in Delta exports. Many snowmelt fed reservoirs gained storage during June so that the total decrease in statewide storage was near the normal 0.5 MAF.

Total storage in the major SWP reservoirs was about 4.64 MAF on June 30, 1999, compared with about 4.7 MAF at this time in 1998. The average storage in the major SWP reservoirs on June 30 was about 4.46 MAF. The June 30 storage at Lake Oroville was about 3.42 MAF as compared to 3.5 MAF last year. The state share of San Luis Reservoir storage was about 556 TAF as compared with 1.06 MAF at this time last year. The combined storage of our southern reservoirs was about 641 TAF on June 30 as compared with 427 TAF at this same time last year. SWP water deliveries for 1999 through June were about 1.07 MAF. This is a combination of project, transfer, and exchange waters. This is about 445 TAF more than that delivered during the same period in 1998.

Salvage of delta smelt continued to be a problem into early July. The "red light" level of concern for May and June were both exceeded. DWR and the Bureau of Reclamation entered into a reconsultation with the U.S. Fish and Wildlife Service to address the high levels of take. Exports at both Tracy and Banks pumping plants were initially reduced, with Banks export restrictions continuing until the end of June due to higher salvage at the SWP facilities. The export reductions accumulated to about 500 TAF by the time normal exports were resumed. This had a major impact on San Luis Reservoir's low point elevation and raised concerns over capability to meet instantaneous delivery demands solely by generation from San Luis. The water users have worked through these two problems with much effort and coordination.

**Table 1. Antelope Lake**

## Daily Operation

(in acre-feet except as noted)

Capacity: 22,566 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right				
May 31	5002.93	23,437								
1	5002.89	23,399	-38	0	0	0	114			
2	5002.81	23,324	-75	0	0	0	98			
3	5002.83	23,342	18	0	0	0	102			
4	5002.87	23,380	38	0	0	0	110			
5	5002.87	23,380	0	0	0	0	110			
6	5002.80	23,314	-66	0	0	0	96			
7	5002.74	23,257	-57	0	0	0	85			
8	5002.70	23,219	-38	0	0	0	78			
9	5002.66	23,182	-37	0	0	0	71			
10	5002.64	23,163	-19	0	0	0	67			
11	5002.59	23,116	-47	13	0	0	59			
12	5002.53	23,059	-57	20	0	0	50			
13	5002.49	23,022	-37	20	0	0	44			
14	5002.45	22,984	-38	20	0	0	38			
15	5002.42	22,956	-28	20	0	0	34			
16	5002.39	22,928	-28	20	0	0	30			
17	5002.36	22,900	-28	20	0	0	27			
18	5002.32	22,862	-38	20	0	0	22			
19	5002.32	22,862	0	20	0	0	22			
20	5002.31	22,853	-9	20	0	0	21			
21	5002.29	22,834	-19	20	0	0	19			
22	5002.27	22,816	-18	20	0	0	17			
23	5002.24	22,788	-28	20	0	0	14			
24	5002.22	22,769	-19	20	0	0	12			
25	5002.19	22,741	-28	20	0	0	10			
26	5002.17	22,722	-19	20	0	0	8			
27	5002.15	22,704	-18	20	0	0	7			
28	5002.14	22,694	-10	20	0	0	6			
29	5002.12	22,676	-18	20	0	0	5			
30	5002.10	22,657	-19	20	0	0	3			
Total cfs-days			---	393	0	0	1,379	239	2,011	
Total ac-ft			-780	780	0	0	2,735	475	3,990	
									3,210	

1/ Values not available on a daily basis.

**Table 2. Frenchman Lake**

## Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

June 1999

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right					
May 31	5588.71	56,606									
1	5588.74	56,654	48	2	0	0	92				
2	5588.81	56,766	112	2	0	0	104				
3	5588.62	56,462	-304	2	0	0	92				
4	5588.69	56,574	112	2	0	0	81				
5	5588.69	56,574	0	2	0	0	86				
6	5588.72	56,622	48	2	0	0	90				
7	5588.63	56,638	16	2	0	0	84				
8	5588.56	56,366	-272	2	0	0	68				
9	5588.54	56,334	-32	2	0	0	61				
10	5588.48	56,238	-96	2	0	0	54				
11	5588.39	56,095	-143	2	0	0	43				
12	5588.39	56,095	0	2	0	0	36				
13	5588.39	56,095	0	2	0	0	36				
14	5588.48	56,238	143	2	0	0	43				
15	5588.47	56,222	-16	2	0	0	49				
16	5588.33	56,000	-222	0	55	0	38				
17	5588.11	55,651	-349	0	82	0	15				
18	5588.12	55,666	15	0	62	0	6				
19	5587.75	55,082	-584	0	52	0	0				
20	5587.65	54,925	-157	0	52	0	0				
21	5587.60	54,847	-78	0	63	0	0				
22	5587.80	55,161	314	0	67	0	0				
23	5587.79	55,145	-16	0	67	0	0				
24	5587.64	54,910	-235	0	67	0	0				
25	5587.59	54,831	-79	0	52	0	0				
26	5587.58	54,815	-16	0	45	0	0				
27	5587.50	54,690	-125	0	45	0	0				
28	5587.42	54,565	-125	0	45	0	0				
29	5587.46	54,627	62	0	48	0	0				
30	5587.40	54,534	-93	0	50	0	0				
Total cfs-days				---	30	852	0	1,078	415	2,375	1,331
Total ac-ft				-2,072	60	1,690	0	2,138	824	4,712	2,640

1/ Values not available on a daily basis.

**Table 3. Lake Davis**  
Daily Operation  
(in acre-feet except as noted)

Capacity: 84,371 ac-ft

June 1999

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs							Computed Inflow	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/			
				Stream-flow Maint.	Water Supply Contract	Water Right						
May 31	5773.95	80,204										
1	5773.94	80,165	-39	23	0	0	0					
2	5773.91	80,048	-117	23	0	0	0					
3	5773.91	80,048	0	23	0	0	0					
4	5773.95	80,204	156	23	0	0	0					
5	5773.98	80,322	118	23	0	0	0					
6	5773.98	80,322	0	23	0	0	0					
7	5773.96	80,244	-78	23	0	0	0					
8	5773.95	80,204	-40	23	0	0	0					
9	5773.94	80,165	-39	23	0	0	0					
10	5773.93	80,126	-39	23	0	0	0					
11	5773.93	80,126	0	23	0	0	0					
12	5773.92	80,027	-99	23	0	0	0					
13	5773.92	80,027	0	23	0	0	0					
14	5773.86	79,853	-174	23	0	0	0					
15	5773.86	79,853	0	23	0	0	0					
16	5773.83	79,735	-118	23	0	0	0					
17	5773.81	79,657	-78	21	0	2	0					
18	5773.79	79,579	-78	19	0	4	0					
19	5773.77	79,501	-78	19	0	4	0					
20	5773.75	79,423	-78	19	0	4	0					
21	5773.70	79,229	-194	19	0	4	0					
22	5773.69	79,190	-39	19	0	4	0					
23	5773.66	79,073	-117	19	0	4	0					
24	5773.61	78,879	-194	19	0	4	0					
25	5773.58	78,762	-117	19	0	4	0					
26	5773.54	78,607	-155	19	0	4	0					
27	5773.51	78,491	-116	19	0	4	0					
28	5773.50	78,452	-39	19	0	4	0					
29	5773.48	78,375	-77	19	0	4	0					
30	5773.46	78,298	-77	19	0	4	0					
Total cfs-days				---	637	0	53	0	883	1,573	612	
Total ac-ft				-1,906	1,264	0	104	0	1,751	3,120	1,214	

### 1/ Values not available on a daily basis.

**Table 4. Lake Oroville**

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537, 580 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow	
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/
May 31	894.70	3,454,519								
1	894.75	3,455,296	777	11,380	36	265	0	11,681	0	12,458
2	894.70	3,454,519	-777	12,621	36	232	0	12,889	0	12,112
3	894.72	3,454,830	311	11,211	36	161	0	11,408	0	11,719
4	894.60	3,452,965	-1,865	11,537	36	45	0	11,618	0	9,753
5	895.14	3,461,361	8,396	2,496	36	205	0	2,737	0	11,133
6	895.71	3,470,238	8,877	1,334	36	232	0	1,602	0	10,479
7	895.71	3,470,238	0	8,030	36	341	0	8,407	0	8,407
8	895.80	3,471,641	1,403	8,229	36	287	0	8,552	0	9,955
9	895.60	3,468,524	-3,117	10,799	36	314	0	11,149	0	8,032
10	895.34	3,464,474	-4,050	12,321	36	296	0	12,653	0	8,603
11	895.33	3,464,318	-156	9,229	36	312	0	9,577	0	9,421
12	895.93	3,473,669	9,351	1,507	36	303	0	1,846	0	11,197
13	896.40	3,481,007	7,338	1,497	36	332	0	1,865	0	9,203
14	896.34	3,480,069	-938	10,741	36	305	0	11,082	0	10,144
15	896.17	3,477,415	-2,654	10,423	36	350	0	10,809	0	8,155
16	895.95	3,473,981	-3,434	12,244	26	269	0	12,539	0	9,105
17	895.76	3,471,018	-2,963	13,894	36	341	0	14,271	0	11,308
18	895.35	3,464,629	-6,389	13,957	36	359	0	14,352	0	7,963
19	895.67	3,469,615	4,986	4,517	36	330	0	4,883	0	9,869
20	895.96	3,474,137	4,522	2,675	36	368	0	3,079	0	7,601
21	895.81	3,471,797	-2,340	10,323	36	323	0	10,682	0	8,342
22	895.60	3,468,524	-3,273	10,660	36	314	0	11,010	0	7,737
23	895.30	3,463,851	-4,673	12,681	36	412	0	13,129	0	8,456
24	895.03	3,459,649	-4,202	10,098	37	384	0	10,519	0	6,317
25	894.76	3,455,451	-4,198	11,284	37	384	0	11,705	0	7,507
26	894.92	3,457,938	2,487	5,786	37	375	0	6,198	0	8,685
27	894.71	3,454,674	-3,264	8,530	37	402	0	8,969	0	5,705
28	894.16	3,446,135	-8,539	15,479	37	473	0	15,989	0	7,450
29	893.30	3,432,814	-13,321	20,057	37	445	0	20,539	0	7,218
30	892.43	3,419,375	-13,439	20,484	40	435	0	20,959	0	7,520
Total				-35,144	296,024	1,080	9,594	0	306,698	0
										271,554

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay  
Including Diversion Pool and Power Canal**

Daily Operation

(in acre-feet except as noted)

**June 1999**

Capacity: 25,120 ac-ft

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County	Thermalito Irrigation District	Releases To River 4/	Hyatt Powerplant Pumpback	
May 31	24,756										
1	23,123	-1,633	11,380	506	0	12,411	0	11	1,211	0	114
2	23,114	-9	12,621	522	0	12,176	0	11	1,242	0	277
3	23,030	-84	11,211	488	0	10,830	0	11	1,209	0	267
4	23,273	243	11,537	496	0	10,740	0	11	1,223	0	184
5	23,466	193	2,496	492	0	1,713	0	11	1,209	0	138
6	23,322	-144	1,334	518	0	799	0	11	1,199	0	13
7	23,375	53	8,030	504	0	7,468	0	11	1,228	0	226
8	23,030	-345	8,229	498	0	7,912	0	11	1,228	0	79
9	23,844	814	10,799	504	0	9,438	0	11	1,220	0	180
10	23,565	-279	12,321	528	0	12,084	0	11	1,136	0	103
11	23,541	-24	9,229	480	0	8,761	0	11	1,140	0	179
12	23,881	340	1,507	500	0	484	0	11	1,131	0	-41
13	23,441	-440	1,497	520	0	1,271	0	11	1,113	0	-62
14	23,678	237	10,741	484	0	9,945	0	11	1,109	0	77
15	23,337	-341	10,423	484	0	10,190	0	11	1,121	0	74
16	23,103	-234	12,244	503	0	11,768	0	11	1,204	0	2
17	23,257	154	13,894	359	0	13,134	0	11	1,305	0	351
18	23,354	97	13,957	502	0	13,216	0	11	1,285	0	150
19	24,226	872	4,517	468	0	2,902	0	11	1,281	0	81
20	24,108	-118	2,675	503	0	2,032	0	11	1,297	0	44
21	23,164	-944	10,323	503	0	10,661	0	11	1,297	0	199
22	23,514	350	10,660	503	0	9,612	0	11	1,311	0	121
23	22,962	-552	12,681	503	0	12,585	0	11	1,289	0	149
24	23,600	638	10,098	504	0	8,744	0	11	1,315	0	106
25	24,060	460	11,284	498	0	10,311	0	11	1,245	0	245
26	23,848	-212	5,786	500	0	5,313	0	12	1,243	0	70
27	23,718	-130	8,530	502	0	8,083	0	12	1,241	0	174
28	23,441	-277	15,479	415	0	15,121	0	12	1,232	0	194
29	23,495	54	20,057	421	0	19,506	0	12	1,230	0	324
30	23,344	-151	20,484	522	0	20,172	0	12	1,226	0	253
Total		-1,412	296,024	14,730	0	279,382	0	335	36,720	0	4,271

1/ Sum of Thermalito Forebay and Diversion Pool.

3/ Includes Bypass flows at Thermalito.

2/ Sum of releases from Lake Oroville through Hyatt plant, spill, and spillway leakage.

4/ The sum of the flows from fish barrier dam and the fish hatchery.

**Table 6. Thermalito Afterbay**

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow					Losses (-) and Gains (+)	Total Releases to River 2/
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback		
May 31	128.20	26,433										
1	129.73	31,260	4,827	12,411	2,876	9	494	1,140	2,499	0	-566	3,710
2	131.11	35,940	4,680	12,176	2,896	3	496	1,114	2,499	0	-488	3,741
3	132.18	39,778	3,838	10,830	2,836	3	470	1,046	2,499	0	-138	3,708
4	133.16	43,452	3,674	10,740	2,698	3	456	934	2,499	0	-476	3,722
5	131.95	38,938	-4,514	1,713	2,539	3	456	837	2,499	0	107	3,708
6	130.34	33,291	-5,647	799	2,400	3	401	791	2,499	0	-352	3,698
7	130.65	34,346	1,055	7,468	2,420	4	377	849	2,499	0	-264	3,727
8	131.02	35,625	1,279	7,912	2,499	7	434	982	2,499	0	-212	3,727
9	131.62	37,747	2,122	9,438	2,638	11	456	1,125	2,499	0	-587	3,719
10	132.90	42,463	4,716	12,084	2,797	17	458	1,246	2,499	0	-351	3,635
11	133.20	43,605	1,142	8,761	2,876	20	516	1,412	2,499	0	-296	3,639
12	131.18	36,185	-7,420	484	2,975	19	655	1,575	2,499	0	-181	3,630
13	129.13	29,321	-6,864	1,271	3,015	19	710	1,632	2,499	0	-260	3,612
14	129.55	30,672	1,351	9,945	3,055	24	789	1,634	2,499	0	-593	3,608
15	130.10	32,485	1,813	10,190	3,154	26	829	1,617	2,499	0	-252	3,620
16	131.04	35,695	3,210	11,768	3,154	24	829	1,585	2,499	0	-467	3,703
17	132.35	40,405	4,710	13,134	3,114	40	831	1,583	2,499	0	-357	3,804
18	133.56	44,995	4,590	13,216	3,094	56	829	1,619	2,499	0	-529	3,784
19	132.16	39,705	-5,290	2,902	3,054	60	849	1,680	2,499	0	-50	3,780
20	130.35	33,325	-6,380	2,032	3,054	56	843	1,682	2,479	0	-298	3,776
21	131.00	35,556	2,231	10,661	3,035	52	833	1,688	2,499	0	-323	3,796
22	131.37	36,856	1,300	9,612	3,055	52	831	1,684	2,499	0	-191	3,810
23	132.49	40,924	4,068	12,585	3,094	46	865	1,740	2,499	0	-273	3,788
24	132.50	40,961	37	8,744	3,114	38	879	1,781	2,499	0	-396	3,814
25	132.96	42,690	1,729	10,311	3,153	32	879	1,872	2,499	0	-147	3,744
26	131.71	38,070	-4,620	5,313	3,153	32	879	1,946	3,610	0	-313	4,853
27	130.08	32,418	-5,652	8,083	3,153	32	879	1,978	7,696	0	3	8,937
28	129.05	29,067	-3,351	15,121	3,153	32	879	2,043	11,722	0	-643	12,954
29	128.96	28,783	-284	19,506	3,153	30	879	2,103	13,230	0	-395	14,460
30	128.73	28,062	-721	20,172	3,153	30	879	2,142	14,222	0	-467	15,448
<b>Total</b>		1,629	279,382	88,360	783	20,860	45,060	112,935	0	-9,755	149,655	

1/ Includes Bypass flows at Thermalito.

2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

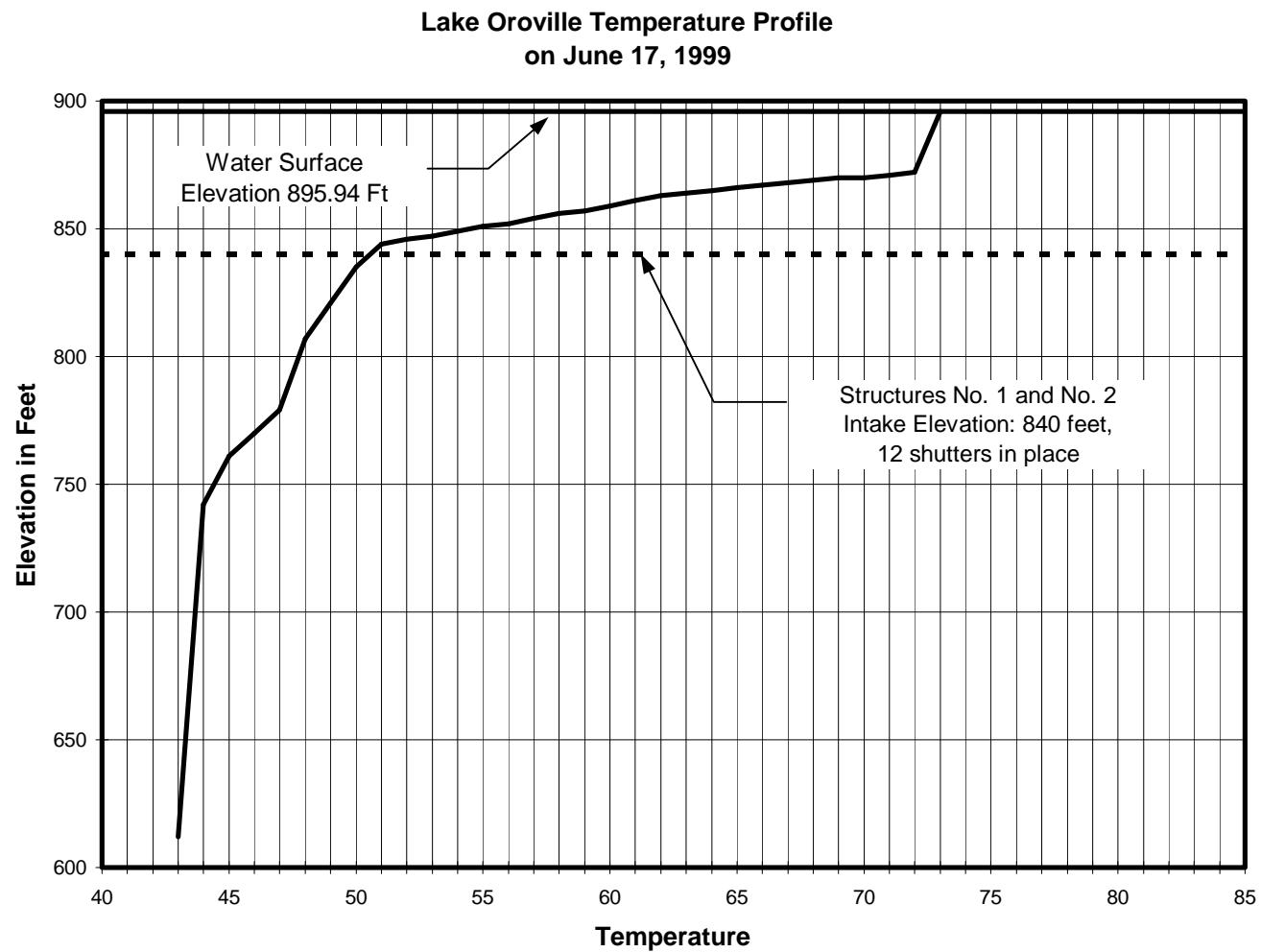
**Table 7. Oroville-Thermalito Complex**

Water Temperature Data

(in degrees Fahrenheit)

June 1999

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	67	55
2	66	54
3	64	55
4	63	55
5	62	56
6	64	56
7	64	55
8	65	55
9	64	55
10	64	56
11	64	56
12	63	56
13	65	56
14	67	56
15	67	56
16	68	56
17	67	57
18	65	57
19	64	53
20	65	53
21	66	53
22	69	54
23	67	54
24	65	54
25	66	54
26	67	55
27	70	55
28	68	54
29	64	55
30	61	55



Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

**Table 8. North Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**June 1999**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending		Mile			Entitlement				
	No.	Structure				Municipal & Industrial	Benicia	Vallejo		
1	1	Barker Slough Pumping Plant	0.17	(Into the North Bay Aqueduct)	4,110	417	1,135	1,021		
		Travis Surge Tank	8.78							
			8.80	Solano County Water Agency Travis Turnout	417					
2			10.54	Solano County Water Agency Fairfield / Vacaville	1,135					
3A	21.33	Cordelia Forebay	21.23			1,133	34	202		
		Cordelia Pumping Plant & Cordelia Spillway	21.30		2,396					
				Solano County Water Agency Vallejo	1,021					
3B	2			Solano County Water Agency Benicia	1,133	6	34	202		
		Cordelia Surge Tank	23.33	Napa Pipeline						
		Creston Surge Tank Connection	25.65	Napa Pipeline						
			26.95	Napa County Flood Control & WCD American Canyon 2	6					
			27.27	Napa County Flood Control & WCD American Canyon 3	0					
		Napa Terminal Tank	27.58	City of Napa	34					
			27.60	Napa County Flood Control & WCD American Canyon 1	202					

**Table 9. Delta Field Division Plant Data**

(in acre-feet)

**June 1999**

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct			
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant		Gravity Flow Through Plant Into Aqueduct
			Total	SWP		Into Lake	Into Aqueduct	
1	116	66	1,450	1,450	282	0	0	0
2	101	61	1,461	1,461	294	0	0	0
3	114	80	1,448	1,448	304	0	0	0
4	143	90	1,450	1,450	280	0	0	0
5	137	80	1,448	1,448	290	0	0	0
6	142	79	1,452	1,452	311	0	0	0
7	141	75	1,448	1,448	311	0	0	0
8	129	67	1,447	1,447	307	0	0	0
9	113	54	1,447	1,447	322	0	0	0
10	131	66	1,446	1,446	337	0	0	0
11	158	89	432	432	349	0	0	0
12	162	91	544	544	373	0	0	0
13	135	69	1,456	1,456	358	0	0	0
14	111	55	1,453	1,453	344	0	0	0
15	83	45	1,451	1,451	364	0	0	0
16	131	66	1,450	1,450	373	0	0	0
17	163	76	1,453	1,453	394	0	0	0
18	177	106	1,450	1,450	429	0	0	0
19	165	97	1,453	1,453	426	0	0	0
20	145	77	1,451	1,451	395	0	0	0
21	129	72	1,446	1,446	391	0	0	0
22	143	78	1,439	1,439	448	24	0	0
23	185	115	1,442	1,442	488	40	0	0
24	172	106	1,439	1,439	466	0	0	0
25	189	122	1,871	1,871	482	0	0	0
26	180	115	3,614	3,614	450	0	0	31
27	164	101	3,614	3,614	374	0	0	97
28	67	49	3,624	3,624	326	0	0	152
29	85	70	5,841	5,841	229	0	0	181
30	99	79	7,857	7,857	352	0	0	157
Total	4,110	2,396	59,277	59,277	10,849	64	0	618

**Table 10. Clifton Court Forebay**

Daily Operation of Gates

**June 1999**

Date	Time								Amount of inflow in Acre-Feet
	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	
1	8:24	13:40							1,548
2	9:00	12:15							1,432
3	9:34	14:52							1,618
4	10:28	16:00							1,647
5	6:33	11:13							1,677
6	6:42	13:30							1,681
7	6:50	15:30							1,553
8	6:35	13:30							1,596
9	6:35	9:41	12:48	17:16					1,661
10	13:33	16:31							1,687
11	0:23	2:11	5:13	6:05					431
12	15:16	17:42							1,674
13	6:50	12:58							1,621
14	6:42	11:50							1,678
15	8:13	14:03							1,611
16	9:12	12:40							1,572
17	6:00	7:45	9:55	12:50					1,686
18	6:15	10:45	13:02	17:05					1,673
19	6:00	11:35	14:50	16:10					1,653
20	9:57	12:35							1,683
21	10:17	12:56							1,668
22	12:37	15:18							1,685
23	6:10	9:20	13:15	14:26					1,674
24	7:10	10:57	14:33	18:00					1,691
25	6:41	7:52							119
26	0:01	3:05	7:20	12:10	16:35	19:08			4,958
27	0:10	3:19	6:26	10:10					4,959
28	0:30	4:25	6:52	12:35	16:40	20:00			6,099
29	0:10	5:03	7:00	11:15	18:25	20:30			6,169
30	0:05	5:42	8:01	11:25	19:31	21:10			6,526
Total inflow for the month in AF:									66,930

**Table 11. Governor Edmund G. Brown California Aqueduct**  
 Delta Field Division, Monthly Deliveries

(In acre-feet)

**June 1999**

Reach No.	Operating Pool		Turnout	Total Diversions	Deliveries					
	Beginning and Ending				Entitle-ment	USBR	Misc.	Loan Water	1997 Carryover Ent.	
	No.	Structure	Mile							
1	Banks Pumping Plant	3.32		59,277						
	South Bay Pumping Plant	4.49	Bethany Reservoir Inlet	10,849						
	Check No. 1	5.95								
	Check No. 2	12.01								
	3	12.47	Musco Olive	35						
	Check No. 3	18.29								
	4	22.16	Tracy Golf & Country Club	42						
	Check No. 4	23.99								
	5	Check No. 5	29.73							
	6	Check No. 6	34.24							
	7	35.22	Turlock Fruit Company Inflow	0						
	Check No. 7	39.91								
2A	8	42.46	Oak Flat Water District-A	8	8	288	235	473	1,004	
		43.81	Oak Flat Water District-B	288						
		44.64	Oak Flat Water District-C	235						
		Check No. 8	45.97							
	9	46.18	Oak Flat Water District-D	473						
			Oak Flat Totals:	1,004						
		Check No. 9	51.30							
		10	Check No. 10	56.86						
2B	11	Check No. 11	61.40			5	0	0	0	
	12		66.14	Veteran's Cemetery						
		Check No. 12	66.71							
				43,923						

**Table 12. South Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**June 1999**

Reach No.	Operating Pool		Turnout	Total Diversions	Deliveries				
	Beginning and Ending				Entitle-ment	Ext. M & I Cry. Ovr.	Local	Recre-ation	
	No.	Structure	Mile						
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	10,849	3	1,013	295	
			3.17	Granite - Vasco Rd. (Temp.)	0				
			3.18	Oakland Scavenger Zone 7	3				
	2	Check No. 1	3.91						
		Check No. 2	5.21						
2	3		7.21	Zone 7 Altamont	0	1,013	142	625	
		Check No. 3	9.49	Zone 7 Patterson Stored Exchange	1,013				
				Zone 7 Patterson Project Water	0				
	4	Check No. 4	10.68						
4	6	Check No. 5	12.29			295	150	68	
			13.55	Zone 7 Wente #1	295				
			14.16	Zone 7 Wente #2	142				
		Check No. 6	14.65						
			14.78	Zone 7 Arroyo Mocho	625				
	7	Check No. 7	16.38						
			16.57	Zone 7 Wente #3	68				
			16.69	Zone 7 Norman Nursery	26				
			16.70	Zone 7 Concannon Stored Exchange	150				
		Del Valle Branch Pipeline Junction	18.63	(Flow into Lake Del Valle)	64				
5	8			(Flow into South Bay Aqueduct)	618	120	21	98	
		Deliveries through Del Valle Branch Pipeline		Arroyo Valle #1 & #2 Inflow Released	0				
				Arroyo Valle #1 & #2 Stored Exchange	120				
				Lake Del Valle Recreation	21				
				Zone 7 Wente #5	98				
			19.20	So. Livermore Inflow Released	118		1,879	118	
				So. Livermore Stored Released	500				
				So. Livermore Stored Exchanged	1,879				
6			19.21	Zone 7 - Kalthrof Detjens	208				
7	La Costa Tunnel	22.50	ACWD Vallecitos	566	566		1,815		
		25.97	City of San Francisco San Antonio	0					
	Mission Tunnel	28.97	ACWD - Bayside 1 & 2 Project Water: Inflow Released Stored Exchange:	0 0 1,815					
	8		Santa Clara Pipeline	35.86		S.C.V.W.D. Meter		3,767	3,767

**Table 13. Lake Del Valle**

Daily Operation

(in acre-feet except as noted)

**June 1999**

Capacity: 77,106 ac-ft

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/ 3/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/ 3/	Evaporation	Total Outflow 3/	
May 31	702.12	39,295									
1	702.12	39,295	0		0	0	0		11		0.00
2	702.12	39,295	0		0	0	0		9		0.00
3	702.12	39,295	0		0	0	0		6		0.30
4	702.12	39,295	0		0	0	0		7		0.00
5	702.12	39,295	0		0	0	0		7		0.00
6	702.15	39,316	21		0	0	0		12		0.00
7	702.12	39,295	-21		0	0	0		11		0.00
8	702.10	39,281	-14		0	0	0		11		0.00
9	702.09	39,274	-7		0	0	0		12		0.00
10	702.07	39,260	-14		0	0	0		10		0.00
11	702.07	39,260	0		0	0	0		12		0.00
12	702.05	39,246	-14		0	0	0		12		0.00
13	702.05	39,246	0		0	0	0		10		0.00
14	702.05	39,248	2		0	0	0		10		0.00
15	702.05	39,248	0		0	0	0		8		0.00
16	702.02	39,223	-25		0	0	0		11		0.00
17	702.00	39,211	-12		0	0	0		11		0.00
18	701.99	39,204	-7		0	0	0		11		0.00
19	701.97	39,190	-14		0	0	0		13		0.00
20	701.95	39,177	-13		0	0	0		11		0.00
21	701.95	39,177	0		0	0	0		12		0.00
22	702.00	39,211	34		24	0	0		14		0.00
23	701.98	39,197	-14		40	0	0		16		0.00
24	701.98	39,197	0		0	0	0		16		0.00
25	701.96	39,183	-14		0	0	0		12		0.00
26	701.91	39,148	-35		0	0	31		13		0.00
27	701.76	39,043	-105		0	0	97		12		0.00
28	701.50	38,862	-181		0	0	152		16		0.00
29	701.19	38,647	-215		0	0	181		16		0.00
30	700.96	38,488	-159		0	0	157		17		0.00
<b>Total</b>			-807	118	64	0	618	21	350	989	0.30

1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.

2/ To East Bay Regional Park District.

3/ Not available on a daily basis.

NR=No Records

**Table 14. Consolidated State-Federal O'Neill Forebay**

Daily Operations

June 1999

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 56,430 Acre-feet

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
				Pump In 1/	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliv- eries 2/	
May 31	222.05	48,517										
1	221.71	47,625	-892	0	0	8,707	398	1,715	0	7,885	50	95
2	221.63	47,414	-211	0	0	8,437	580	1,149	0	7,698	53	-223
3	222.48	49,660	2,246	0	103	8,314	569	258	0	7,450	52	-94
4	221.50	47,073	-2,587	0	328	7,362	675	0	0	9,416	51	-202
5	222.84	50,619	3,546	0	659	7,941	555	0	0	7,064	51	-252
6	222.58	49,926	-693	0	841	5,986	496	0	0	7,569	52	-51
7	223.08	51,260	1,334	0	856	7,175	440	0	0	7,532	46	-220
8	222.89	50,753	-507	0	417	7,448	507	154	0	8,255	47	-172
9	220.76	45,132	-5,621	0	0	7,401	518	321	0	9,848	48	-536
10	220.27	43,853	-1,279	0	0	9,292	613	493	0	9,632	43	-382
11	220.02	43,204	-649	0	0	11,245	143	730	0	11,138	42	195
12	220.31	43,957	753	0	0	11,708	0	946	0	10,215	48	-119
13	220.24	43,775	-182	0	0	10,525	340	1,032	0	10,171	48	294
14	220.37	44,114	339	0	0	10,793	611	1,040	0	10,346	43	196
15	219.65	42,248	-1,866	0	0	10,919	493	878	0	11,687	44	256
16	220.17	43,593	1,345	0	0	11,696	465	688	0	10,431	44	-320
17	220.27	43,853	260	0	0	12,307	463	641	0	11,986	41	29
18	220.40	44,192	339	0	0	12,204	572	738	0	11,825	41	-1
19	220.27	43,853	-339	0	0	12,118	507	842	0	11,929	48	23
20	220.20	43,671	-182	0	0	10,706	375	717	0	10,317	44	-95
21	221.41	46,836	3,165	0	218	10,810	315	224	0	9,383	58	-82
22	222.52	49,767	2,931	0	446	11,223	228	0	0	9,981	45	-393
23	221.90	48,124	-1,643	0	563	8,583	550	0	0	10,415	58	-51
24	221.86	48,019	-105	0	553	9,389	264	0	0	10,506	66	313
25	222.39	49,421	1,402	0	496	10,241	426	0	0	10,084	56	-316
26	221.62	47,388	-2,033	0	613	6,480	1,694	0	0	9,487	60	-265
27	221.95	48,255	867	0	850	7,963	1,480	0	0	9,539	54	-263
28	222.78	50,459	2,204	0	923	7,908	1,675	0	0	9,237	41	-117
29	222.17	48,836	-1,623	0	595	6,527	2,600	73	0	10,460	64	57
30	220.75	45,106	-3,730	0	196	5,053	3,592	68	0	10,648	64	58
Total			-3,411	0	8,657	276,461	22,144	12,707	0	292,134	1,502	-2,639
Mean cfs			---	0	289	9,215	738	424	0	9,738	50	-88
Acre-feet			-3,411	0	17,170	548,357	43,923	25,199	0	579,449	2,979	-5,234

1/ Pump-in located at Mile 79.67R.

2/ Includes 218 AF delivered to DFG at O'Neill Forebay.

**Table 15. Consolidated State-Federal San Luis Reservoir**

Daily Operations

June 1999

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)			Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.		
May 31	499.05	1,496,796							
1	497.49	1,478,979	-17,817	0	8,707	388	0	112	
2	496.00	1,462,030	-16,949	0	8,437	393	0	285	
3	494.51	1,445,146	-16,884	0	8,314	365	0	167	
4	493.18	1,430,132	-15,014	0	7,362	366	0	159	
5	491.74	1,413,936	-16,196	0	7,941	378	0	154	
6	490.63	1,401,495	-12,441	0	5,986	361	0	75	
7	489.29	1,386,524	-14,971	0	7,175	369	0	-4	
8	487.85	1,370,497	-16,027	0	7,448	377	0	-255	
9	486.63	1,356,967	-13,530	0	7,401	282	0	862	
10	484.84	1,337,198	-19,769	0	9,292	278	0	-397	
11	482.87	1,315,554	-21,644	0	11,245	269	0	602	
12	480.71	1,291,958	-23,596	0	11,708	262	0	74	
13	478.76	1,270,778	-21,180	0	10,525	268	0	115	
14	476.62	1,247,669	-23,109	0	10,793	261	0	-597	
15	474.51	1,225,015	-22,654	0	10,919	266	0	-236	
16	472.31	1,201,565	-23,450	0	11,696	258	0	131	
17	469.99	1,176,994	-24,571	0	12,307	265	0	184	
18	467.66	1,152,481	-24,513	0	12,204	273	0	119	
19	465.33	1,128,135	-24,346	0	12,118	272	0	116	
20	463.24	1,106,441	-21,694	0	10,706	268	0	37	
21	461.14	1,084,781	-21,660	0	10,810	269	0	159	
22	458.99	1,062,751	-22,030	0	11,223	272	0	388	
23	457.31	1,045,641	-17,110	0	8,583	277	0	234	
24	455.36	1,025,896	-19,745	0	9,389	270	0	-296	
25	453.34	1,005,574	-20,322	0	10,241	272	0	267	
26	451.99	992,067	-13,507	0	6,480	275	0	-55	
27	450.39	976,139	-15,928	0	7,963	268	0	201	
28	448.78	960,198	-15,941	0	7,908	275	0	146	
29	447.42	946,800	-13,398	0	6,527	282	0	54	
30	446.36	936,402	-10,398	0	5,053	329	0	140	
Total			-560,394	0	276,461	9,008	0	2,941	
Mean cfs			---	0	9,215	300	0	98	
Acre-feet			-560,394	0	548,357	17,863	0	5,826	

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 14,392 AF, San Benito: 3,471 AF.

**Table 16. San Luis Field Division Plant Data**

(in acre-feet)

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project	June 1999
	Total Pumping	SWP Pumping 1/, 2/	Total Generation	SWP Generation 1/, 2/	Total Pumping	SWP Pumping 1/, 2/	Federal	
1	15,640	10,430	17,271	9,303	0	0	770	
2	15,269	10,161	16,734	8,683	0	0	780	
3	14,778	8,722	16,490	9,337	0	0	723	
4	18,676	12,445	14,602	8,799	0	0	725	
5	14,011	7,886	15,751	8,779	0	0	749	
6	15,013	8,711	11,874	6,727	0	0	716	
7	14,939	8,573	14,231	8,609	0	0	731	
8	16,374	9,989	14,773	9,089	0	0	748	
9	19,534	12,979	14,679	9,693	0	0	560	
10	19,106	12,703	18,430	10,921	0	0	551	
11	22,092	15,519	22,304	14,739	0	0	534	
12	20,261	13,780	23,223	15,571	0	0	520	
13	20,175	13,589	20,876	12,943	0	0	531	
14	20,522	14,033	21,408	12,712	0	0	518	
15	23,182	16,725	21,657	12,900	0	0	527	
16	20,690	14,397	23,200	13,646	0	0	511	
17	23,775	15,635	24,411	12,149	0	0	525	
18	23,455	14,775	24,207	14,372	0	0	541	
19	23,662	14,907	24,037	13,088	0	0	539	
20	20,463	11,612	21,236	14,828	0	0	532	
21	18,611	9,451	21,442	10,451	0	0	534	
22	19,798	10,589	22,260	12,929	0	0	539	
23	20,658	11,511	17,024	9,342	0	0	549	
24	20,838	11,710	18,623	9,839	0	0	536	
25	20,001	10,927	20,313	10,961	0	0	539	
26	18,817	9,860	12,853	4,223	0	0	545	
27	18,921	10,034	15,795	8,982	0	0	532	
28	18,321	9,572	15,685	8,189	0	0	546	
29	20,747	11,777	12,946	5,797	0	0	560	
30	21,120	12,428	10,022	3,384	0	0	652	
Total	579,449	355,430	548,357	310,985	0	0	17,863	

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

**Table 17. Consolidated State-Federal Los Banos Reservoir**

Daily Operations  
June 1999

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Capacity: 34,560 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
May 31	329.20	21,239					
1	329.18	21,229	-10	0	0	0	-10
2	329.16	21,219	-10	0	0	0	-10
3	329.14	21,210	-9	0	0	0	-9
4	329.13	21,205	-5	0	0	0	-5
5	329.13	21,205	0	0	0	0	0
6	329.10	21,191	-14	0	0	0	-14
7	329.07	21,177	-14	0	0	0	-14
8	329.05	21,167	-10	0	0	0	-10
9	329.04	21,162	-5	0	0	0	-5
10	329.02	21,153	-9	0	0	0	-9
11	329.00	21,143	-10	0	0	0	-10
12	328.98	21,134	-9	0	0	0	-9
13	328.97	21,129	-5	0	0	0	-5
14	328.96	21,124	-5	0	0	0	-5
15	328.94	21,115	-9	0	0	0	-9
16	328.93	21,110	-5	0	0	0	-5
17	328.91	21,100	-10	0	0	0	-10
18	328.89	21,091	-9	0	0	0	-9
19	328.86	21,077	-14	0	0	0	-14
20	328.84	21,067	-10	0	0	0	-10
21	328.82	21,058	-9	0	0	0	-9
22	328.81	21,053	-5	0	0	0	-5
23	328.77	21,034	-19	0	0	0	-19
24	328.75	21,024	-10	0	0	0	-10
25	328.71	21,005	-19	0	0	0	-19
26	328.69	20,996	-9	0	0	0	-9
27	328.67	20,986	-10	0	0	0	-10
28	328.66	20,982	-4	0	0	0	-4
29	328.64	20,972	-10	0	0	0	-10
30	328.62	20,963	-9	0	0	0	-9
<b>Total</b>			<b>-276</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-276</b>
<b>Mean cfs</b>			<b>---</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>---</b>
<b>Acre-feet</b>			<b>-276</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-276</b>

**Table 18. Consolidated State-Federal Little Panoche Reservoir**

Daily Operations

June 1999

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 5,580 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Computed Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
May 31	602.70	832					
1	Not Observed			3	0	3	0
2	Not Observed			3	0	3	0
3	Not Observed			3	0	3	0
4	602.70	832	0	3	0	3	0
5	Not Observed			3	0	3	0
6	Not Observed			3	0	3	0
7	Not Observed			3	0	3	0
8	Not Observed			3	0	3	0
9	Not Observed			3	0	3	0
10	Not Observed			3	0	3	0
11	602.70	832	0	3	0	3	0
12	Not Observed			3	0	3	0
13	Not Observed			3	0	3	0
14	Not Observed			3	0	3	0
15	Not Observed			3	0	3	0
16	Not Observed			3	0	3	0
17	Not Observed			3	0	3	0
18	602.70	832	0	3	0	3	0
19	Not Observed			3	0	3	0
20	Not Observed			3	0	3	0
21	Not Observed			3	0	3	0
22	Not Observed			3	0	3	0
23	Not Observed			3	0	3	0
24	Not Observed			3	0	3	0
25	602.70	832	0	3	0	3	0
26	Not Observed			3	0	3	0
27	Not Observed			3	0	3	0
28	Not Observed			3	0	3	0
29	Not Observed			3	0	3	0
30	602.70	832	0	3	0	3	0
Total			0	90	0	90	---
Mean cfs			---	3	0	3	---
Acre-feet			0	179	0	179	0

1/ Not available on a daily basis

**Table 19a. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries

(In acre-feet)

**June 1999**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending					USBR	Transfer	DWR	USBR		
	No.	Structure	Mile					Recreation	Recreation		
2B	12	Check No. 12	66.71		43,923						
3	13	O'Neill Forebay		Department of Parks and Recreation	25			14	11		
		Outlet Check No. 13	70.85	Department of Fish & Game	218			120	98		
		70.91	Thru	San Luis Water District	2,761	2,761	0	134	109		
		85.08		(Floodwater Inflow)	0						
				Reach 3 Subtotal:	3,004						
	Dos Amigos Pumping Plant	86.73			579,449						
4	14	89.03		San Luis Water District	10,235	10,235					
		Thru									
		94.06									
		89.66		Pacheco Water District	2,113	2,113					
		Thru									
		89.67									
		89.68		Panoche Water District	5	5					
		Thru									
		89.70		City of Dos Palos	155	155					
	Check No. 14	95.06									
	15	98.15		San Luis Water District	1,044	1,044					
		Thru									
		104.20									
		96.15		Panoche Water District	12,067	12,067					
		Thru									
		102.64		(Floodwater Inflow)	0	2					
		102.64		Broadview Water District	2						
		105.22		Westlands Water District	25,283	25,283					
	Check No.15	108.50									
					Pacheco Water District Total:	2,113	2,113	0	0		
					Broadview Water District Total:	2	2	0	0		
					City of Dos Palos Total:	155	155	0	0		
					SLWD Reach 4 Subtotal:	14,040	14,040	0	0		
					Panoche Water District Total:	12,072	12,072	0	0		
					SLWD Total:	14,040	14,040	0	0		
					Westlands WD Reach 4 Subtotal:	25,283	25,283	0	0		

**Table 19b. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**June 1999**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries							
	Beginning and Ending					USBR	Transfer 1/	DWR	USBR				
	No.	Structure	Mile					Recreation	Recreation				
5	16		110.52	(Reverse flow, Kings River)	0	34,158	34,158	1					
			Thru	Westlands Water District	34,158								
			122.05	Department of Fish and Game	1								
		Check No. 16	122.07										
	17		124.18	Westlands Water District	33,837	33,837	33,837	1					
			132.74										
		Check No. 17	132.95										
	18		133.81	Westlands Water District	30,548	30,548	20,115	568					
			Thru										
			142.61										
		Pleasant Valley Pumping Plant	143.16	Westlands Water District	20,115								
			143.16	City of Coalinga	568								
		Check No. 18	143.23										
				Westlands WD Reach 5 Subtotal:	118,658	118,658	0	0	0				
6	19		145.26	Westlands Water District	41,361	40,361	1,000	0					
			Thru										
		Check No. 19	155.64										
				Westlands WD Reach 6 Subtotal:	41,361	40,361	1,000	0	0				
7	20		156.34	City of Huron	98	98	24,053	0					
			156.40	Westlands Water District	24,053								
			163.69										
		Check No. 20	164.69										
	21		164.79	City of Avenal	233	233	8,373	0					
			167.04	Westlands Water District	8,373								
		Check No. 21	171.67										
		Check No. 21	172.40		342,947								
				Reach 7 Total:	32,757	32,757	0	0	0				
				Westlands WD Total:	217,728	216,728	1,000	0	0				
				City of Coalinga Total:	568	568	0	0	0				
				City of Huron Total:	98	98	0	0	0				
				City of Avenal Total:	233	233	0	0	0				
				Phase I Water Total:	0	0	0	0	0				
				Total San Luis Field Division Deliveries:	247,253	246,009	1,000	135	109				

1/ Includes 1,000 AF of Tulare Lake Basin WSD's agricultural entitlement was delivered to Westlands WD per transfer letter dated 3/11/99.

**Table 20. Consolidated State-Federal San Luis Canal 1/**

Daily Operations  
June 1999

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non- Project 2/	Dos Amigos Pumping Plant	San Luis Water Dist. 3/	Panoche Water District	Westlands Water Dist. 4/	Flow Past Check 21	
May 31	27,896								
1	28,562	666	0	7,885	209	170	2,732	4,523	85
2	28,156	-406	0	7,698	167	170	2,675	4,928	37
3	27,486	-670	0	7,450	201	172	3,037	4,873	495
4	29,014	1,528	0	9,416	195	173	3,026	5,450	199
5	28,277	-737	0	7,064	167	169	2,952	4,373	225
6	29,127	850	0	7,569	189	150	3,097	4,142	437
7	29,071	-56	0	7,532	230	177	2,752	4,473	72
8	28,444	-627	0	8,255	191	160	3,424	5,252	456
9	28,262	-182	0	9,848	220	160	3,474	6,079	-7
10	28,265	3	0	9,632	196	174	3,495	5,666	-99
11	28,306	41	0	11,138	232	179	4,200	6,537	31
12	28,666	360	0	10,215	196	179	4,165	5,548	55
13	28,774	108	0	10,171	237	179	3,927	5,628	-145
14	28,476	-298	0	10,346	264	201	4,085	6,265	319
15	28,869	393	0	11,687	264	201	4,131	6,963	70
16	27,697	-1,172	0	10,431	264	201	3,944	6,788	175
17	28,084	387	0	11,986	230	219	4,263	7,159	80
18	29,327	1,243	0	11,825	271	219	4,362	6,381	35
19	30,903	1,576	0	11,929	204	224	4,171	6,271	-264
20	30,621	-282	0	10,317	266	224	3,943	5,996	-30
21	30,859	238	0	9,383	250	252	3,958	5,012	209
22	29,921	-938	0	9,981	269	232	4,027	6,310	384
23	30,007	86	0	10,415	257	249	3,766	7,115	1,015
24	30,332	325	0	10,506	257	264	3,828	5,937	-56
25	30,279	-53	0	10,084	250	265	3,760	4,701	-1,135
26	30,076	-203	0	9,487	259	223	3,735	5,727	355
27	30,449	373	0	9,539	240	223	3,701	5,853	666
28	30,662	213	0	9,237	155	233	3,875	5,462	595
29	29,999	-663	0	10,460	250	223	4,042	6,893	614
30	29,691	-308	0	10,648	250	221	3,677	6,593	-62
Total		1,795	0	292,134	6,830	6,086	110,224	172,900	4,811
Mean cfs		---	0	9,680	226	202	3,661	5,693	160
Acre-feet		1,795	0	579,449	13,547	12,072	218,630	342,947	9,542

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Pump In of Non-Project Water (0 AF @ Lat.7L) and Flood Water (0 AF) is included in the gain or loss.

3/ Includes 2,112 AF AG & 1 AF M&I to Pacheco W.D. and 155\_ AF to the City of Dos Palo

4/ Includes 98 AF to the City of Huron, 223 AF to the City of Avenal, 568 AF to the City of Coalinga, 0 , Phase I Water @ Lat. 13R, and 2 AF to Broadview W.D

**Table 21. San Joaquin Field Division Plant Data**

(in acre-feet)

**June 1999**

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	541	541	74	74	76	3,464	2,741	2,650	2,430
2	547	547	66	70	72	3,477	2,850	2,589	2,454
3	568	568	72	71	74	3,860	3,087	2,786	2,685
4	651	651	90	91	91	3,527	3,075	2,756	2,566
5	626	626	66	64	64	2,563	2,153	1,935	1,778
6	640	640	68	70	69	2,259	1,730	1,580	1,511
7	603	603	67	68	69	2,927	2,458	2,172	2,157
8	624	624	73	76	77	3,335	2,810	2,546	2,427
9	658	658	91	91	91	3,836	3,170	2,803	2,581
10	667	667	64	66	67	3,794	3,132	2,593	2,586
11	716	716	91	91	91	3,396	2,936	2,689	2,566
12	420	420	70	73	75	3,051	2,361	2,112	1,920
13	460	460	79	80	80	3,114	2,429	2,292	2,176
14	666	666	72	74	77	3,414	2,916	2,733	2,605
15	737	737	85	85	85	4,229	3,505	3,108	2,903
16	692	692	68	71	72	3,658	3,101	2,877	2,613
17	581	581	82	84	85	4,055	3,298	2,935	2,670
18	617	617	63	65	66	3,361	2,701	2,378	2,324
19	723	723	90	91	91	3,447	2,651	2,407	2,269
20	717	717	67	69	70	3,792	3,085	2,756	2,632
21	751	751	89	91	93	3,313	2,971	2,711	2,627
22	777	777	80	80	80	3,874	3,053	2,749	2,585
23	746	746	73	75	76	3,392	2,637	2,369	2,264
24	681	681	69	69	70	3,241	2,482	2,134	1,852
25	713	713	86	86	87	2,897	2,221	1,906	1,748
26	767	767	68	70	71	2,517	1,575	1,660	1,557
27	759	759	79	79	82	3,074	2,493	2,295	2,174
28	598	598	66	70	70	3,311	3,131	2,792	2,603
29	747	747	82	83	92	3,769	3,334	2,728	2,707
30	802	802	104	105	107	4,250	3,515	3,081	2,707
Total	19,795	19,795	2,294	2,332	2,370	102,197	83,601	75,122	70,677

**Table 22a. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

**June 1999**

Reach No.	Operating Pool		Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending				Entitle-ment	Stored Entitlement 1/	Purchase Pool A	USBR	MWD Ent.		
	No.	Structure									
7	21	Check No. 21	172.40	342,947							
8C	22		Empire West Side Irrig. Dist. TL - A County of Kings TL - A 1/ TLBWSD TL-A 175.18 DRWD - 1 177.54 DRWD - 1B 180.64 TLBWSD - C 180.65 DRWD - 1A 182.99 DRWD - 2 183.00 Tulare Lake Basin WSD TL - B 184.63 Coastal Branch Dudley Ridge Water Dist. DRWD - 3	504	504						
				500	500						
				8,979	5,797						
				1,518	1,518						
				312	312						
				887	887						
				4,983	4,983						
				18,500	14,533						
				3,967							
				1,868	1,868						
8D			Dudley Ridge Reach 8D Total:	9,568	9,568	0	0	0	0		
				27,479	20,330	0	7,149	0	0		
31A	23	Check No. 22	184.82  Kern County Water Agency Lost Hills Water Dist. - 1 189.69 Kern County Water Agency Lost Hills Water Dist. - 2 191.18 Kern County Water Agency Lost Hills Water Dist. - 3 194.22 Kern County Water Agency Berrenda Mesa - 2 196.40 Kern County Water Agency Lost Hills Water Dist. - 4 196.75 K.C.W.A. Reach 9 Subtotal:	6,229	6,229						
				2,451	2,451						
				1,465	1,465						
				0	0						
				1,971	1,971						
				12,116	12,116	0	0	0	0		
8D	24	Check No. 23	197.05  Kern County Water Agency Lost Hills Water Dist. - 7 201.24 Kern County Water Agency Lost Hills Water Dist. - 5 202.05 Kern County Water Agency Lost Hills Water Dist. - 6 204.69 Kern County Water Agency Lost Hills Water Dist. - 8 205.26 K.C.W.A. Reach 10A Subtotal:	2,131	2,131						
				4,392	4,392						
10A	25	Check No. 24	207.94  Kern County Water Agency Belridge Water Storage Dist. - 1A 209.71 Kern National Wildlife Refuge USBR BV-1B 209.78 Kern County Water Agency Buena Vista WSD 1B 209.80 KCWA Semitropic WSD 48,199 KCWA Semitropic WSD Penstocks 0 USBR Total: K.C.W.A. Reach 10A Subtotal:	2,104	2,104						
				61	61						

1/ Semitropic WSD is storing 14,520 AF of this entitlement water for Santa Clara Valley WD; 12,620 AF for Alameda County WD; 3,730 for Metropolitan WDSC; and 17,300 AF for Alameda County WD-Zone 7.

**Table 22b. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

June 1999

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending		Mile			Entitlement	Inter-ruptible Ent.	Purchase Pool A	Exchange	MWD Ent. 2/		
	No.	Structure										
11B	25		210.75	Kern County Water Agency Belridge - 2	0	2,535						
			214.11	Kern County Water Agency Belridge - 3	2,535							
			216.62	Kern County Water Agency Belridge - 4	0							
			217.13	Kern County Water Agency Belridge - 5	12,393							
				Kern County Water Agency Belridge - 5D	189							
		Check No. 25	217.79									
				K.C.W.A. Reach 11B Subtotal:	15,117	15,117	0	0	0	0		
12D	26		219.58	Kern County Water Agency Belridge - 6	0							
			Check No. 26	224.92								
12E	27		230.37	Kern County Water Agency Buena Vista - 6	7,844	7,844						
			Check No. 27	231.73								
			235.75	Kern County Water Agency Buena Vista - 2	11,590							
			238.04	Kern County WA CVC	43,986		11,590	1,300	9,943			
				DRWD CVC	0							
				Tulare Co.	0							
				Lower Tule River	0							
				Fresno Co.	0							
	28		238.04	Pixley ID	0	32,743		1,300	9,943			
				Hacienda DWR Wells	0							
			Check No. 28	238.11								
				1/ Arvin Edison Total:	0							
				Reach 12E Subtotal:	63,420	52,177	0	1,300	0	9,943		
13B	29		241.02	Kern River Intertie (inflow)	0	11,918						
				KCWA Buena Vista WSD - 7	11,918							
				KCWA Buena Vista WSD - 5	1,853							
				Kern County Water Agency Buena Vista - 3	5,593		5,593	1,283	9,943			
				Check No. 29	244.54							
	30		243.09	Buena Vista WSD	0							
				Kern County Water Agency Buena Vista - 4	1,283							
14A	31		249.85	Buena Vista Pumping Plant	102,197							
				K.C.W.A. Reach 13B Subtotal:	20,647							
			254.47	Kern County Water Agency West Kern - 2	0		0					
			256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2	131							

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

2/ Arvin-Edison WSD is storing this entitlement water for MWD.

**Table 22c. Governor Edmund G. Brown California Aqueduct**  
San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

June 1999

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
	Beginning and Ending		Structure			Entitlement	Inter-ruptible Ent.	MWD Ent. Exch.	MWD Exchange	MWD Ent.	
	No.		Mile								
14A	31	Check No. 31	256.14			1,068	2,336				
	32			Kern County Water Agency							
				258.61	Wheeler Ridge-Maricopa - 3			1,068			
				260.44	Kern County Water Agency			2,336			
		Check No. 32	261.72		Wheeler Ridge-Maricopa - 4						
14B				KCWA Reach 14A Subtotal:	3,535	3,535	0	0	0	0	
	33			Kern County Water Agency		5,746	708				
				264.42	Wheeler Ridge-Maricopa - 5						
				266.91	Kern County Water Agency			708			
		Check No. 33	267.36		Wheeler Ridge-Maricopa - 6						
	34			Kern County Water Agency		5,233					
				270.24	Wheeler Ridge-Maricopa - 7						
14C	35			Check No. 34	271.27	11,687					
					Kern County Water Agency						
				272.39	Wheeler Ridge-Maricopa - 8						
				276.09	Kern County Water Agency						
					Wheeler Ridge-Maricopa - 9	1,955					
15A				KCWA Reach 14C Total:	5,201	5,201	0	0	0	0	
	36			Teerink Pumping Plant	278.13	83,601	705				
					Kern County Water Agency						
				279.02	Wheeler Ridge-Maricopa - 9A						
				280.06	Kern County Water Agency						
					Wheeler Ridge-Maricopa - 10	6,186					
				KCWA Reach 15-A Total:	6,891	6,891	0	0	0	0	
16A	37			Chrisman Pumping Plant	280.36	75,122	0				
					Kern County Water Agency						
				282.06	Wheeler Ridge-Maricopa - 11						
				Check No. 37	283.95						
					Kern County Water Agency						
	38			285.01	Wheeler Ridge-Maricopa - 12	7	569				
				286.39	Kern County Water Agency						
				287.06	Wheeler Ridge-Maricopa - 13A						
					Kern County Water Agency						
16A	39			287.06	Wheeler Ridge-Maricopa - 13	0	172				
				Check No. 38	287.09						
					Kern County Water Agency						
	40			287.62	Wheeler Ridge-Maricopa - 13B	172	1,966				
				Check No. 39	290.21						
					Kern County Water Agency						
17E				291.26	Wheeler Ridge-Maricopa - 14	389	1,232				
				293.07	Kern County Water Agency						
					Wheeler Ridge-Maricopa - 15						
					Tehachapi Cummings CWD	1,232					
					K.C.W.A. Reach 16A Subtotal:	4,335	4,335	0	0	0	
		Edmonston Pumping Plant	293.45			70,677					

**Table 23. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

June 1999

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending					Entitle-ment	Stored Ent. 1/	MWD Ent. 2/	Exchange	Purchase Pool A		
	No.	Structure	Mile									
31A	C-1	Coastal Branch Control	0.02		19,795	127						
		Las Perillas Pumping Plant	1.16		19,795							
	C-2		3.79	Green Valley Water District	0							
		Badger Hill Pumping Plant	4.27		19,795							
	C-3	Coastal Check No. 3	7.21									
	C-4		9.34	Castaic Lake WA (Devil's Den WD #1)	127							
		Coastal Check No. 4	9.34									
	C-5	Coastal Check No. 5	12.20									
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	1,319		1,319					
			14.83	Kern County Water Agency Berrenda Mesa - DD	0							
				Kern County Water Agency Berrenda Mesa - PO	15,169		15,169					
		Devil's Den Pumping Plant	14.86		2,294							
				K.C.W.A. Reach 31A Subtotal:	16,488	16,488	0	0	0	0		
				K.C.W.A. Total:	217,697	158,284	48,170	9,943	0	1,300		
33A	C-7	Bluestone Pumping Plant	19.05		2,332	2,002						
	C-8	Polonio Pass Pumping Plant	26.54		2,370							
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant								
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	2,002							
		Tank Site 2	58.63	Central Coast:	0							
34	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	351	351						
		Energy Dissipater	78.12									
	Lopez T.O.	85.86		SLOCFC & WCD	0							
35	C-12			CCWA Total:	2,353	2,353	0	0	0	0		
		Guadalupe T.O.	102.70	SBCFC & WCD	0							
		Santa Maria T.O.	107.43	SBCFC & WCD	0							
		So. Cal. Water T.O.	109.20	SBCFC & WCD	0							
38				SBCFC & WCD Total:	0	0	0	0	0	0		
		Tank Site 5	115.42									

1/ Semitropic WSD is storing this Entitlement water for the following contractors: 3,730 AF for Metropolitan WDSC; 14,520 AF for Santa Clara Valley WD; 12,620 AF for Alameda County WD; and 17,300 AF for Alameda County WD-Zone 7.

2/ Arvin-Edison WSD is storing this entitlement water for MWD.

**Table 24. Southern Field Division Plant Data**

(in acre-feet)

June 1999

Date	West Branch					East Branch							
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			Devil Canyon Powerplant Generation
		Generation	Leakage	Generation	Pumpback	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume	
1	550	540	0	5,124	2,984	1,641	0	0	1,490	1,745	0	0	1,574
2	538	547	0	1,988	3,669	1,765	0	99	1,544	1,394	0	168	1,686
3	541	546	0	3,850	1,053	1,917	0	251	1,707	1,580	0	0	1,553
4	480	545	0	3,401	325	1,833	0	189	1,483	1,419	0	0	1,349
5	360	559	0	2,168	3,457	1,400	0	0	1,099	1,145	0	0	377
6	432	0	0	2,236	4,598	990	0	0	1,249	1,198	0	0	661
7	547	613	0	6,357	2,952	1,514	0	0	816	1,232	0	0	1,390
8	452	555	0	5,054	3,796	1,762	0	93	1,432	1,575	0	0	1,503
9	543	494	0	7,026	4,539	1,873	0	145	1,629	1,310	0	0	1,739
10	513	537	0	6,103	3,124	1,966	0	83	1,601	1,479	0	0	1,656
11	432	541	0	6,567	3,774	1,690	0	72	1,565	1,565	0	0	1,006
12	580	859	0	527	4,168	1,578	0	0	875	1,106	0	0	921
13	512	298	0	823	5,988	1,523	0	0	975	985	0	0	872
14	715	748	0	7,297	4,665	1,856	0	0	1,878	1,836	0	0	1,802
15	797	550	0	5,250	4,222	2,010	0	65	1,932	2,106	0	0	1,841
16	457	548	0	6,342	4,975	1,896	0	180	1,436	1,421	0	0	1,937
17	259	150	0	4,762	3,875	1,986	0	383	1,505	1,494	0	0	1,938
18	0	132	0	6,075	3,528	1,937	0	303	1,756	1,563	0	0	1,896
19	0	0	0	470	3,733	1,966	0	298	1,772	2,110	0	0	1,819
20	0	0	0	659	6,405	2,584	0	0	2,043	2,124	0	0	2,045
21	0	0	0	4,415	3,684	2,065	0	518	2,237	2,391	0	0	2,115
22	0	0	0	7,137	4,435	2,042	0	475	2,087	2,156	0	0	2,329
23	0	0	0	7,203	5,047	1,783	0	209	1,855	1,721	0	0	1,587
24	0	0	0	6,662	5,963	1,724	0	210	1,477	1,360	0	0	1,456
25	0	0	0	7,568	6,102	1,627	0	28	1,262	1,075	0	0	1,204
26	0	0	0	1,604	6,220	1,403	0	101	1,041	1,212	0	0	1,100
27	418	0	0	2,700	7,018	1,644	0	0	1,118	1,204	0	0	1,136
28	444	545	0	6,733	3,400	1,898	0	237	1,630	1,724	0	0	1,620
29	489	714	0	6,946	4,196	1,870	0	451	1,762	1,431	0	70	1,859
30	617	547	0	6,641	5,304	1,935	0	376	1,807	1,816	0	0	2,092
Total	10,676	10,568	0	139,688	127,199	53,678	0	4,766	46,063	46,477	0	238	46,063

**Table 25. Pyramid Lake  
Daily Operation**

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

June 1999

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow			Computed Losses (-) Gains (+)	
				Project		Natural	Project		Natural		
				Castaic Powerplant Pumpback	Warne Powerplant	Stream Flow	Castaic Powerplant Generation	Recreation Deliveries	To Piru Creek		
May 31	2576.05	167,396									
1	2574.71	165,688	-1,708	2,984	540	40	5,124	0	50	-98	
2	2576.49	167,959	2,271	3,669	547	45	1,988	0	50	48	
3	2574.44	165,346	-2,613	1,053	546	50	3,850	0	50	-362	
4	2572.36	162,722	-2,624	325	545	49	3,401	0	50	-92	
5	2573.85	164,599	1,877	3,457	559	44	2,168	0	50	35	
6	2575.63	166,859	2,260	4,598	0	39	2,236	0	50	-91	
7	2573.27	163,866	-2,993	2,952	613	37	6,357	1	50	-187	
8	2572.32	162,672	-1,194	3,796	555	37	5,054	0	50	-478	
9	2570.51	160,411	-2,261	4,539	494	35	7,026	0	50	-253	
10	2568.33	157,716	-2,695	3,124	537	35	6,103	0	50	-238	
11	2566.24	155,159	-2,557	3,774	541	35	6,567	0	50	-290	
12	2569.98	159,753	4,594	4,168	859	34	527	0	50	110	
13	2574.31	165,181	5,428	5,988	298	32	823	0	51	-16	
14	2572.31	162,659	-2,522	4,665	748	32	7,297	0	52	-618	
15	2572.14	162,446	-213	4,222	550	32	5,250	0	52	285	
16	2571.27	161,358	-1,088	4,975	548	32	6,342	0	52	-249	
17	2570.66	160,598	-760	3,875	150	29	4,762	0	52	0	
18	2568.50	157,925	-2,673	3,528	132	29	6,075	1	51	-235	
19	2571.14	161,196	3,271	3,733	0	27	470	0	51	32	
20	2575.63	166,859	5,663	6,405	0	27	659	0	51	-59	
21	2574.90	165,930	-929	3,684	0	27	4,415	0	51	-174	
22	2572.53	162,935	-2,995	4,435	0	26	7,137	0	51	-268	
23	2570.44	160,324	-2,611	5,047	0	25	7,203	0	51	-429	
24	2569.52	159,184	-1,140	5,963	0	25	6,662	0	51	-415	
25	2567.91	157,200	-1,984	6,102	0	24	7,568	1	51	-490	
26	2571.55	161,708	4,508	6,220	0	24	1,604	0	51	-81	
27	2574.90	165,930	4,222	7,018	0	23	2,700	0	51	-68	
28	2572.48	162,873	-3,057	3,400	545	22	6,733	0	51	-240	
29	2570.47	160,362	-2,511	4,196	714	22	6,946	0	51	-446	
30	2569.52	159,184	-1,178	5,304	547	20	6,641	0	51	-357	
Total				-8,212	127,199	10,568	958	139,688	3	1,522	-5,724

**Table 26. Elderberry Forebay**

Daily Operation

(in acre-feet except as noted)

Capacity: 32,746 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) Gains (+)	
				Castaic Powerplant Generation	Natural	Castaic Powerplant Pumpback	To Castaic Lake			
							Natural	Project		
May 31	1507.54	18,250								
1	1509.77	19,096	846	5,124	5	2,984	5	1,289	-5	
2	1505.24	17,397	-1,699	1,988	5	3,669	5	0	-18	
3	1508.93	18,775	1,378	3,850	6	1,053	6	1,399	-20	
4	1516.75	21,877	3,102	3,401	7	325	7	0	26	
5	1513.68	20,628	-1,249	2,168	5	3,457	5	0	40	
6	1507.65	18,291	-2,337	2,236	4	4,598	4	0	25	
7	1516.64	21,831	3,540	6,357	3	2,952	3	0	135	
8	1516.88	21,930	99	5,054	3	3,796	3	1,149	-10	
9	1523.24	24,640	2,710	7,026	3	4,539	3	0	223	
10	1525.88	25,807	1,167	6,103	2	3,124	2	1,818	6	
11	1532.24	28,727	2,920	6,567	2	3,774	2	0	127	
12	1524.22	25,070	-3,657	527	2	4,168	2	0	-16	
13	1511.94	19,938	-5,132	823	1	5,988	1	0	33	
14	1519.05	22,837	2,899	7,297	1	4,665	1	0	267	
15	1517.87	22,342	-495	5,250	1	4,222	1	1,528	5	
16	1521.52	23,892	1,550	6,342	1	4,975	1	0	183	
17	1523.03	24,548	656	4,762	1	3,875	1	230	-1	
18	1528.91	27,179	2,631	6,075	0	3,528	0	0	84	
19	1521.65	23,949	-3,230	470	0	3,733	0	0	33	
20	1507.67	18,299	-5,650	659	0	6,405	0	0	96	
21	1509.85	19,127	828	4,415	0	3,684	0	0	97	
22	1517.17	22,050	2,923	7,137	0	4,435	0	0	221	
23	1522.96	24,518	2,468	7,203	0	5,047	0	0	312	
24	1525.56	25,664	1,146	6,662	0	5,963	0	0	447	
25	1529.75	27,566	1,902	7,568	0	6,102	0	0	436	
26	1519.61	23,075	-4,491	1,604	0	6,220	0	0	125	
27	1509.24	18,893	-4,182	2,700	0	7,018	0	0	136	
28	1517.91	22,359	3,466	6,733	0	3,400	0	0	133	
29	1522.22	24,195	1,836	6,946	0	4,196	0	919	5	
30	1525.82	25,780	1,585	6,641	0	5,304	0	0	248	
Total				7,530	139,688	52	127,199	52	8,332	3,373

**Table 27. Castaic Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow		Computed Losses (-) Gains (+)	
				From Elderberry Forebay		Natural	Deliveries	Released To Castaic Lagoon		
				Natural	Project					
May 31	1502.55	296,571								
1	1502.82	297,144	573	5	1,289	9	645	50	-35	
2	1502.50	296,465	-679	5	0	12	540	50	-106	
3	1503.16	297,868	1,403	6	1,399	13	406	50	441	
4	1502.98	297,485	-383	7	0	11	360	10	-31	
5	1502.77	297,038	-447	5	0	7	487	10	38	
6	1502.49	296,443	-595	4	0	6	526	10	-69	
7	1502.28	295,998	-445	3	0	6	555	10	111	
8	1502.64	296,762	764	3	1,149	6	647	10	263	
9	1502.34	296,125	-637	3	0	6	649	0	3	
10	1502.98	297,485	1,360	2	1,818	5	588	0	123	
11	1502.65	296,783	-702	2	0	5	677	0	-32	
12	1502.38	296,210	-573	2	0	4	610	0	31	
13	1502.08	295,574	-636	1	0	3	617	0	-23	
14	1501.77	294,918	-656	1	0	3	635	0	-25	
15	1502.13	295,680	762	1	1,528	3	727	0	-43	
16	1501.77	294,918	-762	1	0	3	748	0	-18	
17	1501.49	294,325	-593	1	230	3	732	0	-95	
18	1501.18	293,671	-654	0	0	3	720	0	63	
19	1500.85	292,975	-696	0	0	3	673	0	-26	
20	1500.53	292,301	-674	0	0	2	619	0	-57	
21	1500.23	291,670	-631	0	0	2	585	0	-48	
22	1499.93	291,039	-631	0	0	3	586	0	-48	
23	1499.63	290,410	-629	0	0	2	653	0	22	
24	1499.24	289,593	-817	0	0	2	711	0	-108	
25	1498.88	288,840	-753	0	0	2	720	0	-35	
26	1498.49	288,025	-815	0	0	2	746	20	-51	
27	1498.07	287,149	-876	0	0	2	765	39	-74	
28	1497.71	286,400	-749	0	0	2	742	39	30	
29	1497.99	286,983	583	0	919	1	690	30	383	
30	1497.60	286,171	-812	0	0	1	750	0	-63	
Total			-10,400	52	8,332	132	19,109	328	521	

**Table 28. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

**June 1999**

Reach No.	Operating Pool			Turnout	Total Diver- sions	Deliveries					
	Beginning and Ending		Structure			Entitle- ment	Rec.	Local	Purchase	CLWA T1	
	No.	Structure	Mile	Pool B							
29A	42	Oso Pumping Plant	1.49		10,676						
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved				3		
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub						
29G		Warne Power Plant	14.07		10,568						
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	3				32	1,895	
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0						
29J	W4	Castaic Power Plant	25.82	( 127,199 AF pumpback )	139,688						
		Elderberry Forebay									
		Forebay Dam	28.12								
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	32				1,895	-1,895	
		Dam	31.47								
		Castaic Lake Outlet	31.55	MWD - 78"	0						
				MWD - 132"	17,910						
				MWD-Castaic Lake WA - T1	-1,895						
				Castaic Lake WA - T1	1,895						
				Castaic Lake WA	1,013						
				United Water Conservation Dist.	0						
				MWD - Ventura County FCD	154						
				LA Co. Parks & Recreation	0						
				Releases to Lagoon	328						
				Reach 30 Subtotal:	18,096						
	W6	Castaic Lagoon		Recreation to Lagoon	232		232				
		Outlet	31.87		269						

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

**Table 29. Silverwood Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

**June 1999**

Date	Water Surface Elev. (in feet)	Storage	Storage Change	Inflow			Outflow					Computed Losses (-) Gains (+)	Las Flores Ranch Exchange 1/	
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Inflow	Project			Del. To Mojave W.A.	Natural To Mojave River			
							Delivered to CLAWA	Rec.	San Bernardino Tunnel					
May 31	3349.14	69,369												
1	3349.36	69,575	206	1,745	0	2	4	0	1,574	0	0	37	0	
2	3349.27	69,491	-84	1,394	168	9	4	0	1,686	0	0	35	0	
3	3349.31	69,528	37	1,580	0	7	4	0	1,553	1	0	8	0	
4	3349.32	69,538	10	1,419	0	7	4	0	1,349	0	0	-63	0	
5	3350.11	70,280	742	1,145	0	6	4	0	377	0	0	-28	0	
6	3350.67	70,809	529	1,198	0	5	4	0	661	1	0	-8	0	
7	3350.48	70,629	-180	1,232	0	5	4	0	1,390	0	0	-23	0	
8	3350.61	70,752	123	1,575	0	5	4	0	1,503	0	0	50	0	
9	3350.15	70,318	-434	1,310	0	5	3	0	1,739	1	0	-6	0	
10	3349.85	70,035	-283	1,479	0	4	4	0	1,656	0	0	-106	0	
11	3350.53	70,676	641	1,565	0	4	4	0	1,006	0	0	82	0	
12	3350.78	70,913	237	1,106	0	4	4	0	921	1	0	53	0	
13	3350.82	70,951	38	985	0	3	4	0	872	0	0	-74	0	
14	3350.85	70,979	28	1,836	0	3	4	0	1,802	0	0	-5	0	
15	3350.99	71,112	133	2,106	0	3	4	0	1,841	1	0	-130	0	
16	3350.49	70,639	-473	1,421	0	2	4	0	1,937	0	0	45	0	
17	3349.89	70,073	-566	1,494	0	2	4	0	1,938	0	0	-120	0	
18	3349.61	69,810	-263	1,563	0	2	5	0	1,896	1	0	74	0	
19	3349.78	69,969	159	2,110	0	2	5	0	1,819	0	0	-129	0	
20	3349.98	70,158	189	2,124	0	2	5	0	2,045	0	0	113	0	
21	3350.21	70,374	216	2,391	0	2	5	0	2,115	1	0	-56	0	
22	3350.03	70,205	-169	2,156	0	2	4	0	2,329	0	0	6	0	
23	3350.11	70,280	75	1,721	0	1	4	0	1,587	0	0	-56	0	
24	3350.02	70,195	-85	1,360	0	1	4	0	1,456	1	0	15	0	
25	3349.75	69,941	-254	1,075	0	1	3	0	1,204	0	0	-123	0	
26	3349.90	70,082	141	1,212	0	1	4	0	1,100	0	0	32	0	
27	3349.98	70,158	76	1,204	0	1	4	0	1,136	1	0	12	0	
28	3350.01	70,186	28	1,724	0	1	4	0	1,620	0	0	-73	2	
29	3349.71	69,904	-282	1,431	70	1	4	0	1,859	0	0	79	3	
30	3349.39	69,603	-301	1,816	0	0	4	0	2,092	1	0	-20	2	
Total				234	46,477	238	93	122	0	46,063	10	0	-379	7

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

**Table 30. Lake Perris**  
**Daily Operation**  
(in acre-feet except as noted)

Capacity: 131,452 ac-ft

**June 1999**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
May 31	1587.32	125,286				
1	1587.31	125,263	-23		10	
2	1587.29	125,217	-46		10	
3	1587.32	125,286	69		10	
4	1587.29	125,217	-69		11	
5	1587.34	125,332	115		10	
6	1587.35	125,354	22		11	
7	1587.35	125,354	0		11	
8	1587.32	125,286	-68		11	
9	1587.30	125,240	-46		11	
10	1587.31	125,263	23		11	
11	1587.29	125,217	-46		11	
12	1587.29	125,217	0		11	
13	1587.32	125,286	69		11	
14	1587.33	125,309	23		11	
15	1587.34	125,332	23		11	
16	1587.35	125,354	22		11	
17	1587.33	125,309	-45		11	
18	1587.37	125,400	91		11	
19	1587.39	125,446	46		11	
20	1587.40	125,469	23		11	
21	1587.42	125,514	45		11	
22	1587.43	125,537	23		11	
23	1587.44	125,560	23		11	
24	1587.43	125,537	-23		12	
25	1587.43	125,537	0		12	
26	1587.44	125,560	23		12	
27	1587.44	125,560	0		11	
28	1587.44	125,560	0		12	
29	1587.44	125,560	0		12	
30	1587.44	125,560	0		12	
<b>Total</b>			<b>274</b>	<b>1,676</b>	<b>332</b>	<b>-1,070</b>

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries to MWD from Reach 28J and recreation water to California State Park at lake Perris.

**Table 31a. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

**June 1999**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	Rec.	Transfer	Purchase Pool B	Transfer Local Out		
	No.	Structure	Mile									
17E	40	Edmonston Pumping Plant	293.45		70,677							
	41		298.65	Kern County Water Agency Tej.-Cas	Stub							
17F		Check No. 41	303.41									
18A	42	Check No. 42	304.99									
19	43	Alamo Powerplant	305.73	(Does not include 4,766 AF flow down Cottonwood Chute)	53,678	71	4,072	164	0	0		
			308.05	Antelope Valley-East Kern WA	0							
		Check No. 43	309.70									
	44		311.84	LADWP Connection	0							
			313.50	AVEK 245th Street West	0							
		Check No. 44	314.81									
	45		314.93	AVEK 235th Street West	71							
			315.57	AVEK 225th Street West	0							
		Check No. 45	319.74									
	46		323.19	Antelope Valley-East Kern WA Fairmont	4,236							
		Check No. 46	323.84									
				Reach 19 Total:	4,307							
20A	47	Check No. 47	326.77			47	3,949	1,843	8	0		
	48		326.91	Antelope Valley-East Kern WA Willow Springs Siphon	47							
			329.65	Antelope Valley-East Kern WA 120th Street West	Re- moved							
		Check No. 48	330.82									
	49	Check No. 49	335.93									
	50		336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	34							
20B				Antelope Valley-East Kern WA	3,949							
		Check No. 50	341.51									
51	Check No. 51	342.07										
52		342.80	Antelope Valley-East Kern WA 30th Street West	Not in Use								
	Check No. 52	343.74										
53		346.98	PWD Palmdale	1,843								
	21			348.14	Antelope Valley-East Kern WA Acton Treatment Plant						8	
			Check No. 53	348.17								
54	Check No. 54	350.25										
55	Check No. 55	352.70										
56	Check No. 56	354.76										
57		354.97	Littlerock Creek I.D.	65								
	22A		Check No. 57	356.93								
58		357.60	Antelope Valley-East Kern WA	2								
		357.72	Antelope Valley-East Kern WA 96th Street East	133								
22B			359.82	Antelope Valley-East Kern WA East Side Treatment Plant	559							

**Table 31b. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

June 1999

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	Recreation	Ex-change	Purchase Pool B	Local		
	No.	Structure	Mile									
22B	58	Pearblossom Pumping Plant	360.61		46,063	434						
	59	Check No. 59	366.09									
	60	Check No. 60	373.94									
	61	Check No. 61	379.00									
	62	Check No. 62	384.26									
	63	Check No. 63	389.20	Mojave Water Agency Mojave River	434							
	64	Check No. 64	395.10									
	65	Check No. 65	400.32									
	66		401.10	Mojave Water Agency Morongo 24" and 42"	244	244						
				Mojave Water Agency Hesperia	0							
23	Check No. 66		403.41									
24	67	Mojave Siphon	405.48	Las Flores Ranch	7	112	10			7		
		Mojave Siphon Powerplant	405.65	(Does not include 238 AF of bypass at Mojave Flume)	46,477							
		Silverwood Lake	407.65	Crestline Lake Arrowhead Water Agency	112							
				Calif. State Park Silverwood Agency (Rec.)	10							
	25	San Bernardino Tunnel	411.46		46,063							
26A	68	Devil Canyon Afterbay Control Structures	412.88	San Gorgonio Pass Water Agency	0	8,223	3,444	2,088	2,857	3,911		
				MWD-SC Rialto	8,223							
				Desert Water Agency (MWD Wheeling Exchange)	6,301							
				San Gabriel Valley Water District	2,798							
				Coachella Valley WD (MWD Wheeling Exchange)	5,999							
				San Bernardino Valley Metropolitan Water District	1,097							
				MWD (SBVMWD Exchange)	0							
28G	69	Santa Ana Valley Pipeline	425.46			7,181	12,627	298				
28H			433.06	MWD-SC Box Springs	7,181							
			440.05	MWD-SC Perris Bypass Pipeline	12,627							
28J		Lake Perris	442.00	MWD-SC 18"	298							
			443.44	MWD-SC 54"	0							
				MWD-SC 78"	0							
				Calif. State Park Lake Perris Recreation	34							
				MWD Total:	56,798	50,030	0	0	6,768	0		

**Table 32. Water Quality At Selected SWP Locations**

June 1999

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/l	37	109	62	59	79	82	78	80	72
Arsenic	mg/l	<0.001	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Boron	mg/l	<0.10	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Bromide	mg/l	<0.01	0.04	0.10	0.18	0.19	0.18	0.18	0.18	0.14
Calcium	mg/l	8	18	18	16	20	20	20	20	19
Carbon - Total Organic	mg/l	NR	5	4	4	3	3	NR	3	3
Chloride	mg/l	1	20	36	31	63	63	62	62	51
Chromium	mg/l	<0.005	0.010	0.006	0.005	0.006	0.006	0.006	0.007	0.006
Copper	mg/l	0.001	0.003	0.007	0.002	0.002	0.002	0.002	0.002	0.002
Fluoride	mg/l	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness	mg/l	32	111	82	73	99	99	99	99	89
Iron	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/l	3	16	9	8	12	12	12	12	10
Manganese	mg/l	<0.005	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.012
Nitrate + Nitrite	mg/l	<0.01	0.40	0.76	NR	NR	NR	NR	0.48	0.50
Phosphorus-Ortho	mg/l	<0.01	0.12	0.09	NR	NR	NR	NR	0.08	0.07
Phosphorus-Total	mg/l	0.01	0.18	0.16	NR	NR	NR	NR	0.10	0.08
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sodium	mg/l	3	27	32	28	52	49	48	52	48
Specific Conductance	µS/cm	76	326	310	288	442	440	435	436	395
Sulfate	mg/l	<1	25	33	28	37	37	38	38	40
Total Dissolved Solids	mg/l	48	183	182	154	233	233	228	230	230
Trihalomethane Formation Potential	µg/l	NR	493	391	342	340	NR	317	303	350
Turbidity	NTU	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	4	77	29	45	6	11	17	24	6

mg/l milligrams per liter

µg/l micrograms per liter

µS/cm microSiemens per centimeter

NR - Not Reported

NTU - nephelometric turbidity units

**Table 33. Water Quality At Selected Delta Stations**

June 1999

Date	Tides (feet above mean sea level)		Flow In CFS			Electrical Conductivity in milliSiemens/cm								Cl in mg/l	
	(Antioch) Daily Mean		Net Delta Outflow Index	Rio Vista	Antioch	Chippis Island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal		
	Mean Daily	Monthly Average					md	md	md	14dm					
	Hi	Half												md	
1	3.41	1.46	19,914	19,914	11,958	0.18	0.57	0.17	0.16	0.18	0.18	0.50	0.55	0.46	53
2	3.45	1.48	19,273	19,594	11,655	0.19	0.53	0.16	0.16	0.18	0.18	0.86	0.53	0.49	33
3	3.17	1.26	17,514	18,900	11,927	0.19	0.34	0.16	0.16	0.17	0.18	0.17	0.54	0.43	27
4	2.57	1.03	17,605	18,577	11,960	0.18	0.27	0.16	0.16	0.17	0.18	0.51	0.54	0.37	26
5	2.37	1.02	17,535	18,368	12,573	0.17	0.27	0.16	0.16	0.17	0.18	0.52	0.53	0.36	26
6	2.38	0.96	18,386	18,371	12,940	0.17	0.25	0.16	0.16	0.17	0.18	0.42	0.54	0.35	25
7	2.38	0.71	18,917	18,449	12,687	0.17	0.21	0.16	0.16	0.17	0.18	0.04	0.53	0.34	21
8	2.40	0.58	19,065	18,526	11,925	0.16	0.21	0.16	0.16	0.17	0.18	0.09	0.51	0.32	23
9	2.55	0.59	18,303	18,501	10,836	0.16	0.24	0.16	0.16	0.17	0.18	0.33	0.50	0.35	21
10	2.89	0.70	16,807	18,332	10,125	0.17	0.38	0.16	0.16	0.17	0.17	0.33	0.49	0.36	22
11	3.20	0.96	16,359	18,153	9,319	0.18	0.70	0.17	0.16	0.17	0.17	0.23	0.49	0.36	20
12	3.51	1.08	14,387	17,839	9,223	0.21	0.97	0.17	0.16	0.17	0.17	0.25	0.52	0.36	18
13	3.63	1.13	14,053	17,548	8,757	0.22	1.06	0.17	0.16	0.17	0.17	0.24	0.56	0.36	21
14	3.72	1.22	13,649	17,269	8,711	0.26	1.18	0.18	0.16	0.17	0.17	0.32	0.56	0.37	18
15	3.71 e	1.26 e	13,775	17,036	8,320	0.30	1.29	0.19	0.17	0.17	0.17	0.33	0.53	0.37	18
16	3.56	1.19	12,969	16,782	8,400	0.28	1.10	0.19	0.17	0.17	0.17	0.37	0.52	0.37	18
17	3.27	1.15	12,919	16,555	8,321	0.28	NC	0.19	0.17	0.17	0.17	0.16	0.52	0.38	19
18	3.04	1.15	12,700	16,341	8,313	0.28	NC	0.19	0.17	0.17	0.17	0.14	0.53	0.38	24
19	2.58	1.04	12,588	16,143	8,285	0.26	0.91	0.19	0.17	0.17	0.17	0.17	0.54	0.38	18
20	2.79	1.00	11,815	15,927	8,051	0.26	0.85	0.18	0.18	0.17	0.17	0.06	0.56	0.37	18
21	2.79	1.07 e	11,915	15,736	8,080	0.27	1.00	0.19	0.18	0.17	0.17	0.10	0.57	0.37	19
22	2.99	1.16	11,369	15,537	7,974	0.27	1.02	0.18	0.18	0.17	0.17	NC	0.58	0.34	24
23	3.23	1.37	10,971	15,339	7,899	0.29	1.47	0.19	0.18	0.18	0.17	NC	0.55	0.34	22
24	3.56	1.53	10,219	15,125	7,949	0.33	1.93	0.20	0.18	0.18	0.17	0.43	0.54	0.33	19
25	3.38	1.25	10,675	14,947	8,219	0.31	1.63	0.19	0.19	0.18	0.17	0.83	0.58	0.33	17
26	3.36	1.26	8,457	14,698	8,632	0.35	1.60	0.19	0.19	0.18	0.17	0.66	0.58	0.33	18
27	3.39	1.23	8,909	14,483	8,871	0.37	1.76	0.20	0.19	0.18	0.17	0.40	0.59	0.33	19
28	3.40	1.25	8,807	14,281	9,792	0.40	1.81	0.20	0.19	0.19	0.18	0.06	0.56	0.33	18
29	3.54	1.39	10,080	14,136	11,141	0.44	2.09	0.21	0.19	0.19	0.18	NC	0.57	0.32	16
30	3.65	1.70 e	11,611	14,052	12,228	0.45	2.29	0.22	0.19	0.20	0.18	NC	0.56	0.32	16

Clifton Court Cl(mg/l)=200X EC - 25

e = Estimated

f = Excess Delta conditions with fish concerns.

N.R. = No Record.

r = Excess delta conditions with export/in dm = Daily Mean

N.C. = Not computed due to insufficient data.

s = Balanced water conditions with storage md = Mean Daily

**Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP**

**June 1999**

Sampling Location	Sample Date	Chemical Detected	Concentration µg/l
	1/		2/
North Bay Aqueduct At Barker Slough Pumping Plant	June 16, 1999	None Detected	-
California Aqueduct At Banks Pumping Plant	June 16, 1999	None Detected	-
Delta Mendota Canal At McCabe Road	June 16, 1999	Methyl tert-butyl ether (MTBE)	2.8
California Aqueduct Near Kettleman City (Check 21)	June 16, 1999	None Detected	-
California Aqueduct At Tehachapi Afterbay (Check 41)	June 16, 1999	None Detected	-
Devil Canyon Power Plant At Entrance To Santa Ana Pipeline	Jun-99	Methyl tert-butyl ether (MTBE)	2.7

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

**Table 35. Oroville and Delta Field Divisions Energy Data**

(in kWh)

**June 1999**

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant Load	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	7,620,768	288	21,014	22,407	442,368	442,368	232,060	242
2	8,299,008	4,896	17,941	20,671	441,984	441,984	240,610	241
3	7,098,912	3,456	24,500	25,991	442,368	442,368	247,580	230
4	7,413,984	9,216	25,438	23,618	442,176	442,176	232,535	238
5	1,278,720	18,144	24,626	25,277	442,368	442,368	238,810	244
6	827,712	26,784	25,242	24,822	441,984	441,984	250,550	240
7	5,024,448	16,128	25,305	23,576	441,792	441,792	251,715	232
8	5,247,648	12,672	22,939	23,086	441,792	441,792	251,515	236
9	6,913,728	8,928	20,132	20,118	441,792	441,792	264,785	229
10	8,048,160	6,048	23,499	22,407	442,176	442,176	277,150	247
11	5,961,600	8,064	28,483	25,459	139,584	139,584	282,910	239
12	622,368	10,080	29,064	26,845	173,760	173,760	299,375	249
13	845,856	21,888	24,199	21,791	443,136	443,136	292,340	257
14	6,987,744	8,064	19,901	21,217	442,944	442,944	272,835	257
15	6,820,704	7,488	14,868	19,201	441,984	441,984	283,635	244
16	8,000,064	8,928	23,534	23,296	442,368	442,368	291,590	257
17	9,128,160	8,928	29,316	26,593	442,944	442,944	313,120	529
18	9,127,008	8,640	31,612	29,687	442,752	442,752	343,555	278
19	2,755,584	15,840	29,848	25,305	442,752	442,752	340,845	278
20	1,558,368	23,040	25,991	24,892	442,752	442,752	316,830	282
21	6,777,504	12,096	23,100	25,270	442,176	442,176	315,795	268
22	6,994,944	13,248	25,529	24,717	441,792	441,792	357,725	1,776
23	8,310,816	11,808	33,138	30,716	442,368	442,368	386,375	2,423
24	6,516,288	10,368	30,898	31,255	441,408	441,408	365,830	215
25	7,376,544	3,168	34,188	34,391	564,672	564,672	380,465	188
26	3,736,224	4,032	32,452	31,353	1,040,448	1,040,448	356,950	236
27	5,623,776	4,032	29,547	29,652	1,042,368	1,042,368	292,550	194
28	10,242,432	864	12,222	13,993	1,043,328	1,043,328	258,445	301
29	13,253,760	0	15,533	15,638	1,645,824	1,645,824	183,450	255
30	13,567,680	0	17,962	22,883	2,297,856	2,297,856	280,220	280
Total	191,980,512	287,136	742,021	736,127	17,678,016	17,678,016	8,702,150	11,385

**Table 36. San Luis Field Division Energy Data**

(in kWh)

**June 1999**

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	2,152,224	1,435,224	4,107,456	2,212,456	6,624	6,624
2	2,143,296	1,426,296	3,938,976	2,043,976	6,048	6,048
3	2,079,216	1,227,216	3,859,200	2,185,200	6,912	6,912
4	2,553,840	1,701,840	3,404,736	2,051,736	9,504	9,504
5	1,949,040	1,097,040	3,659,616	2,039,616	4,896	4,896
6	2,029,680	1,177,680	2,740,608	1,552,608	7,776	7,776
7	2,090,880	1,199,880	3,257,568	1,970,568	7,488	7,488
8	2,284,848	1,393,848	3,345,120	2,058,120	7,200	7,200
9	2,655,216	1,764,216	3,091,104	2,041,104	8,640	8,640
10	2,658,816	1,767,816	4,160,160	2,465,160	4,320	4,320
11	2,994,624	2,103,624	4,997,664	3,302,664	0	0
12	2,785,248	1,894,248	5,143,968	3,448,968	0	0
13	2,729,376	1,838,376	4,639,392	2,876,392	0	0
14	2,817,792	1,926,792	4,758,912	2,825,912	0	0
15	3,198,960	2,307,960	4,780,512	2,847,512	0	0
16	2,929,536	2,038,536	4,936,608	2,903,608	0	0
17	3,285,936	2,160,936	5,112,288	2,544,288	0	0
18	3,210,048	2,022,048	5,003,712	2,970,712	0	0
19	3,283,776	2,068,776	4,900,032	2,668,032	0	0
20	2,809,008	1,594,008	4,315,104	3,013,104	0	0
21	2,541,744	1,290,744	4,354,272	2,122,272	0	0
22	2,689,488	1,438,488	4,460,832	2,590,832	0	0
23	2,825,280	1,574,280	3,424,032	1,879,032	5,184	5,184
24	2,855,952	1,604,952	3,877,632	2,048,632	2,880	2,880
25	2,757,456	1,506,456	4,027,104	2,173,104	2,880	2,880
26	2,628,144	1,377,144	2,531,808	831,808	4,608	4,608
27	2,663,424	1,412,424	3,094,848	1,759,848	6,912	6,912
28	2,538,000	1,326,000	3,044,448	1,589,448	6,624	6,624
29	2,803,392	1,591,392	2,515,392	1,126,392	7,200	7,200
30	2,944,944	1,732,944	1,947,744	657,744	7,776	7,776
Total	79,889,184	49,001,184	117,430,848	66,800,848	113,472	113,472

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

**Table 37. San Joaquin Field Division Pumping Plant Energy Load Data**

(in kWh)

**June 1999**

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	41,492	115,584	53,856	54,954	54,918	835,488	747,936	1,584,864	5,415,120
2	41,720	114,320	48,096	52,416	51,732	839,880	752,328	1,616,544	5,494,320
3	43,550	119,888	52,452	53,100	53,226	923,760	809,784	1,746,144	6,099,120
4	50,514	136,128	65,106	67,356	65,106	839,160	814,104	1,730,016	5,745,600
5	48,496	133,872	48,618	48,312	46,278	621,648	566,208	1,243,296	3,997,440
6	50,238	138,288	49,428	52,632	51,804	547,128	457,056	1,039,104	3,414,240
7	47,634	134,472	49,356	50,526	49,050	711,360	646,416	1,359,936	4,813,920
8	48,652	134,144	53,064	57,150	55,260	805,968	745,632	1,570,464	5,434,560
9	49,904	139,792	66,276	67,932	65,232	931,680	828,792	1,732,608	5,862,960
10	51,792	141,144	47,304	49,626	48,546	919,728	814,464	1,725,696	5,870,880
11	56,486	149,200	66,132	67,662	65,484	823,896	769,680	1,671,552	5,751,360
12	32,888	92,400	51,462	54,540	54,144	740,232	619,992	1,296,864	4,310,640
13	35,790	97,736	58,032	59,328	57,294	755,496	637,128	1,400,256	4,876,560
14	51,660	139,368	52,992	55,818	55,278	818,640	763,200	1,706,976	5,917,680
15	58,096	158,616	61,920	63,720	61,254	1,022,904	914,976	1,944,000	6,588,000
16	53,936	145,680	50,418	52,866	52,110	884,520	813,168	1,713,312	5,847,840
17	44,852	121,848	60,264	62,208	60,714	980,352	863,712	1,831,104	6,048,720
18	47,444	131,848	47,034	48,636	48,204	811,944	718,992	1,485,216	5,199,120
19	56,468	154,952	64,728	67,482	65,736	826,056	696,960	1,510,272	5,075,280
20	56,570	156,592	49,500	51,174	50,418	912,168	808,488	1,802,592	5,971,680
21	59,102	162,552	64,350	67,338	66,906	783,792	777,384	1,686,240	5,950,800
22	61,032	164,776	58,302	59,346	58,104	929,808	800,064	1,696,032	5,788,800
23	58,494	159,816	53,226	56,088	55,152	820,368	691,200	1,459,008	5,070,960
24	53,306	146,832	50,868	51,570	50,364	783,504	657,936	1,351,008	4,338,000
25	56,138	154,792	62,226	64,044	62,676	698,040	587,160	1,195,200	3,918,960
26	59,584	165,720	50,454	52,362	51,642	614,376	491,256	1,043,712	3,501,360
27	59,474	162,648	58,104	58,986	58,284	747,072	656,496	1,467,072	4,816,800
28	49,110	138,160	49,302	52,218	50,292	838,008	819,072	1,722,240	5,905,440
29	58,872	160,696	61,578	62,784	64,278	933,840	870,696	1,835,712	6,141,600
30	62,672	169,848	75,258	76,590	75,690	1,059,912	921,312	1,920,960	6,696,720
Total	1,545,966	4,241,712	1,679,706	1,738,764	1,705,176	24,760,728	22,061,592	47,088,000	159,864,480

**Table 38. Southern Field Division Energy Data**

(in kWh)

**June 1999**

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation
1	171,136	344,880	480,000	211,680	1,009,380	1,915,392	143,766
2	146,272	350,280	480,000	210,896	1,080,984	2,011,584	113,274
3	131,152	348,336	480,000	228,088	1,162,428	1,836,000	133,182
4	130,088	348,192	480,000	218,680	1,012,980	1,656,000	118,797
5	103,264	356,832	480,000	170,044	754,548	453,696	95,865
6	130,256	0	480,000	116,872	856,008	801,408	96,768
7	157,696	387,864	480,000	181,272	563,676	1,671,168	101,556
8	129,920	356,112	480,000	212,184	978,876	1,794,336	124,488
9	154,728	315,288	480,000	225,008	1,092,456	2,068,128	107,331
10	143,528	344,376	480,000	235,116	1,083,312	1,998,432	121,485
11	126,896	346,824	480,000	233,968	1,067,148	1,188,000	128,730
12	162,176	533,520	480,000	159,992	602,880	1,129,728	89,985
13	156,800	187,560	480,000	183,092	673,320	1,073,088	79,443
14	197,792	455,040	480,000	222,516	1,274,016	2,119,968	146,412
15	219,968	348,336	480,000	239,400	1,317,024	2,204,352	165,375
16	131,320	347,544	480,000	222,376	986,892	2,291,904	117,075
17	75,992	96,192	480,000	234,808	1,021,188	2,313,600	118,314
18	7,224	76,104	0	229,600	1,191,300	2,275,104	125,979
19	6,832	0	0	233,352	1,202,688	2,190,528	167,706
20	6,776	0	0	313,992	1,388,712	2,487,456	166,404
21	7,168	0	0	242,424	1,498,644	2,590,560	186,942
22	7,168	0	0	240,912	1,415,004	2,805,984	165,732
23	7,448	0	0	211,232	1,261,740	1,903,488	140,112
24	7,280	0	0	202,300	1,007,556	1,767,648	109,746
25	7,056	0	0	193,592	859,968	1,475,136	89,124
26	7,000	0	0	166,992	714,048	1,337,088	100,674
27	127,344	0	0	198,632	770,016	1,390,848	99,666
28	129,584	344,304	480,000	225,372	1,106,976	1,938,432	143,514
29	131,208	429,048	480,000	221,872	1,196,064	2,198,208	117,222
30	171,360	346,464	480,000	227,892	1,220,772	2,489,184	151,095
Total	3,092,432	6,663,096	9,600,000	6,414,156	31,370,604	55,376,448	3,765,762